The Hidalgo County Metropolitan Planning Organization Vision

The vision for the development of the transportation system and its infrastructure must look towards the anticipated growth of the Rio Grande Valley. As we move toward our vision, the MPO seeks one that will be environmentally friendly as well as care for the land as we build it. A vision will re-enforce economic and social goals leading to increased accessibility and mobility. These goals will assist us as we pursue excellence in our educational, occupational, familial, social, recreation, and religious opportunities. Through the means of transportation, our objective is to continuously provide and make available these opportunities in Hidalgo County.

The Metropolitan Transportation Plan (MTP) for the metropolitan area of Hidalgo County will continue to provide the maximum amount of mobility for residents and visitors within the urbanized portions of the county as well as recognize the importance of sufficient connections to destinations outside of the area, especially international connections to various cities around Mexico. The MTP and its subsequent implementation are and will remain sensitive to the impacts on the natural and historic/built environment that can result from construction and operation of transportation facilities and systems. The Plan will support the goals of the United States Congress in showing fiscal constraint and the goals of safety, air quality, clean water, preservation of neighborhoods and cultural integrity. The plan will envision to the degree possible, future conditions and provide for the realistic and affordable development of a transportation system that will allow people to have adequate mobility to achieve a full, well rounded lifestyle.

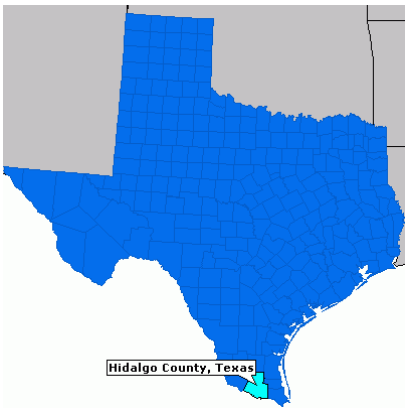
Section 134 (h) of Title 23 U.S.C. of Federal Highway Administration (FHW*A)* and the Federal Transit Administration (FTA) section 5303 (h) of Title 49 U.S.C. lists eight planning factors that must be considered as part of the transportation planning process for all metropolitan areas. At a minimum, these factors shall be explicitly considered, analyzed as appropriate, and reflected in the production of planning documents. These factors, as listed below, are considered in prioritizing projects for inclusion in the Long Range Transportation Plan.

- *Support the economic vitality of the United States, the States, metropolitan areas, and non-metropolitan areas, especially by enabling global competitiveness, productivity, and efficiency.*

- *Increase the safety of the transportation system for motorized and non-motorized users.*
- *Increase the security of the transportation system for motorized and non-motorized users.*
- *Increase accessibility and mobility of people and freight.*
- *Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvement and State and local planned growth and economic development patterns.*
- *Enhance the integration and connectivity of the transportation system, across and between modes throughout the State, for people and freight.*
- *Promote efficient system management and operation.*
- *Emphasize the preservation of the existing transportation system.*

Keeping in mind the Code of Federal Regulations (CFR), Title 23, Part 450, Subpart B, Article 306, the Hidalgo County MPO incorporates the eight planning factors in the transportation planning process of the metropolitan area as "the metropolitan transportation planning process shall be continuous, cooperative, and comprehensive, and provide for consideration and implementation of projects, strategies and services that will address the planning factors".

1.0 Introduction



The Hidalgo County Metropolitan Planning Organization (HCMPO) is located within the Lower Rio Grande Valley in a river delta of the Rio Grande River at the Tropical Tip of Texas. The area is located 72 miles west of the Gulf of Mexico and the resort area of South Padre Island. The McAllen Metropolitan Area is also 10 minutes from the U.S./Mexico border and is separated from the closest international city of Reynosa, Mexico (a city of 1 million persons) by the Rio Grande River. Since Hidalgo County is within minutes of Mexico, the region is amongst the most culturally diverse areas in the country with a large percentage of the population speaking Spanish.

Today, it is the 6th largest metropolitan area in Texas and at a 3.96% growth rate, and it is one of the fastest growing metropolitan areas in the country. This growth rate is almost twice that of the state of Texas. Hidalgo County is also amongst the largest regional economies along the Texas-Mexico border and the metro area's economic and population growth is attributed largely to the fact that the region is so close to the border. Indeed, since the passage of the North American Free Trade Agreement (NAFTA) in 1994, that growth was accelerated.

Larger in population than more than three U.S. states, the region is a significant economic, social, and political center for Texas and the U.S., with substantial growth in population and employment that is expected to continue. Contributing factors to this increase in population and economic activity include higher-than-average birth rates (higher than National and State averages), increased trade activity with Mexico, and the advent of the Maquila plant system. Our subtropical climate with its mild winters has increased the levels of "Winter Texans" from all over North America and Canada and the revenue they bring with them has helped to boost our economy. By the year 2035, Hidalgo County will be the 5th largest metropolitan area in Texas and the county is expected to include approximately one million people.

The 2010-2035 MTP will reflect several changes, such as addressing in more detail scenario planning and visualization techniques that will be paramount tools for the public participation process. The public and stakeholders in general will have a direct opportunity to make a contribution to the metropolitan transportation planning process in Hidalgo County.

Another change will be reflected in the fiscal constraint of the MTP, which will show recent and future rescissions affecting the transportation environment in our current struggling economy.

The State of Texas is requiring Transportation Management Areas (TMA's) to develop an evaluation of current and future mobility and rehabilitation needs in comparison with the level of funding expected to be received through the 25 year MTP. This was captured with the development of the 2004 Texas Metropolitan Mobility Plan (TMMP). The 2004 TMMP provided a clearer picture of the transportation funding required to relieve congestion to the acceptable level of 1.08 TCI during the next 25 years. TCI (Texas Congestion Index) measures the mobility of people and goods with attention to the delay time experienced by drivers. The 2004 TMMP revealed a shortage in funding in the amount of $788,000,000. A 2006 TMMP update was also developed, increasing the funding shortage to $1,000,000,000. The financially constrained MTP includes 3,082 total roadway miles for the entire Hidalgo County region, and the TMMP has identified an additional need of $1.4 billion to address all of the county's mobility needs.

1.1 Long Range Transportation Plan: MTP

The Metropolitan Transportation Plan (MTP) is a comprehensive, multimodal blueprint for transportation systems and services aimed at meeting the mobility needs of the metropolitan area. The plan also serves as a statement of how the region plans to invest in the transportation system over the next 25 years. The MTP, identified as the *Hidalgo County Metropolitan Transportation Plan: 2010 Update*, includes both long and short-range policies, strategies, and projects that lead to the development of an integrated intermodal transportation system that facilitates the efficient movement of people and goods. The MTP is required to be financially-constrained, balanced to anticipate revenue streams over time, and able to identify and analyze the financial resources available to implement its recommendations. The MTP guides the expenditure of more than $1 billion of federal, state and local funds expected to be available for transportation improvements in Hidalgo County through the year 2035.

Federal regulations dictate that each region must develop the plan under the following criteria:

- ✓ Updated every five years for areas that are in attainment regions for air quality standards, such as McAllen;

- ✓ Consider multiple modes of transportation, such as private vehicles, public transportation, bicycles, or walking;
- ✓ Conform with air quality requirements established by the Clean Air Act Amendments of 1990;
- ✓ Be financially-constrained, demonstrating that the plan has reasonable funding sources available to achieve it throughout the years;

- ✓ Comply with the spirit of environmental justice, which ensures that the benefits of transportation related investments are distributed evenly among the population, and that no single group in the region is affected adversely;
- ✓ Early and continuous public involvement to make sure that every citizen has the opportunity to be informed and to participate in the development of the plan, or any other activity within the transportation planning process;
- ✓ Have a minimum of a 20-year planning horizon.

One of the characteristics of the transportation planning process is that it is a continuous activity. Thus, the 2035 MTP builds on prior plans that have been developed by the MPO. The most recent plan was the 2030 MTP, adopted by the HCMPO Policy Board on December 16, 2004, which was amended to be SAFETEA-LU compliant in 2007. The MTP project list was amended throughout the 5 years in order to coordinate with the TIP. The 2035 MTP uses elements from the 2030 MTP and its amendments that are still relevant, such as specific roadway and transit projects. The planning process recognizes that the world changes very quickly and that the conditions that were valid in the development of the 2035 MTP may not be so today.

1.2 Hidalgo County Metropolitan Planning Organization (HCMPO)

Since 1993, the HCMPO has served as the Metropolitan Planning Organization (MPO) for the transportation needs of the McAllen Metropolitan Area. The HCMPO is responsible for the regional planning process for all modes of transportation. Also, the HCMPO provides technical support and staff assistance to the HCMPO Policy Committee and its technical subcommittees, which compose the HCMPO policy-making structure. In addition, the

HCMPO provides technical assistance to the local governments of Hidalgo County in planning, coordinating, and implementing transportation decisions.

1.2A Importance of Transportation in an Area

Transportation's basic purpose is to move people and goods from one place to another. An efficient transportation system can improve the economy of an area, shape development patterns, and influence the quality of life and the natural environment in a specific region. Transportation planning in metropolitan areas is a collaborative process, with the HCMPO and its planning partners in the regional transportation system working together to create the best transportation system possible for their area.

Transportation planning follows the requirements of the three (3) C's "continuing, cooperative and comprehensive." First, it is continuing in that it is an ongoing process that builds on prior plans that have been developed and adjusts to changes in an area over time. Planning is also comprehensive, because it provides a holistic look at the needs and future of the region as well as a region's inhabitants. Finally, the transportation process is cooperative because several local entities are involved in the planning process and no single agency has complete responsibility for the construction, operation or maintenance of the entire transportation system.

When the 3-C formula is used in transportation planning, a successful transportation system results. The "continuous, cooperative and comprehensive" process helps to reduce vehicular congestion and promotes a healthy environment for the citizens of the community.

1.2B History of Hidalgo County Metropolitan Planning Organization

The Federal Aid Highway Act of 1962 stated that transportation planning in urban areas with a population of 50,000 is required to base their plans on a "continuing, cooperative, comprehensive" (3-C) transportation planning process carried out by states and local communities. The 1973 Federal Highway Act required the Governor's Office to designate an MPO in each urbanized area with a central city of over 50,000 in population. The 1980 Census count placed McAllen as the first city in the area to exceed the 50,000 population threshold for a central city. As a result, the McAllen-Pharr-Edinburg urbanized area was designated as an MPO called the McAllen-Pharr-Edinburg Urban Transportation Study Area by agreement with the Texas State Department of Highways and Public Transportation on June 12, 1981. This agreement was revised in 1983 and remained in effect until 1991.

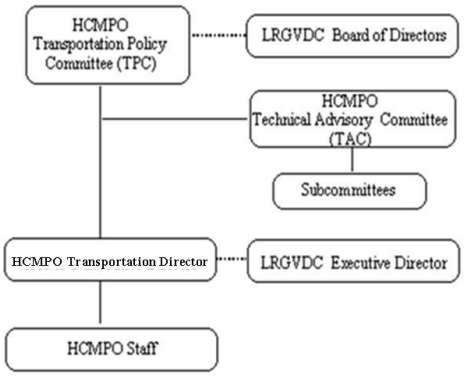
The 1991 Intermodal Surface Transportation Efficiency Act (ISTEA) was signed into law on December 18, 1991, and created a new category of larger metropolitan areas called Transportation Management Areas (TMA), defined as MPOs populated at 200,000 or more. After the 1990 counts, the Census Bureau expanded the urbanized boundary for the McAllen-Pharr-Edinburg urbanized area to stretch from Weslaco, west to Palmview and from the city of Hidalgo, north to Edinburg. The population count was approximately 290,000. The McAllen-Pharr-Edinburg area was then designated as a TMA. The 1991 ISTEA and subsequent federal regulations placed a much higher emphasis upon transportation planning and increased requirements significantly for the required transportation planning process. With the increase in area, including additional cities, and the increase in planning requirements, the McAllen-Pharr-Edinburg MPO was re-organized to accommodate the additional requirements. On February 23, 1993, the Governor of Texas designated the Policy Committee of the Hidalgo County Metropolitan Planning Organization to provide policy guidance and direction for the area's transportation planning. By contract on April 8, 1993, the Lower Rio Grande Valley Development Council (LRGVDC) was designated as the Metropolitan Planning Organization to perform the fiscal, administrative, and technical functions as directed by the Policy Committee. This relationship was renewed with a new contract signed in May 1998.

A significant new policy of ISTEA that affected both planning and programming at the state DOT and MPO level, was the requirement to constrain MPO plans to reasonably available financial resources. ISTEA specified that a long range transportation plan include a financial plan that shows how future projects and programs can be funded. The purpose of this requirement was to encourage good financial planning and to prevent plans from becoming "wish lists" of projects with no realistic chance of implementation. Without constraints, the need to make choices and set priorities was often ignored. Financial constraint requirements also ensure that maintenance and operation of the existing system is funded. Local, state, and federal funds are projected for a minimum of 20 years. All proposed transportation projects included in the Plan are matched with appropriate funding sources. The result is a financially constrained plan that addresses the future transportation needs of the MPO area.

Transportation policy and planning procedures after ISTEA have evolved as newer transportation bills have been implemented. *The Transportation Equity Act for the **21**st Century* (TEA-21) was the successor legislation to the ISTEA which builds on the initiatives set forth earlier. Increased funding for transit and highway projects, assurances that each state receives a minimum return on the amount of gas taxes it contributes to the Highway

Trust Fund as well as budget rules to "guarantee" minimum funding levels for Federal highway, highway safety and transit programs were notable changes made. Current federal legislation is directed under *The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users* (SAFETEA-LU). It preserves most aspects of ISTEA and TEA-21 but changed the cycles for planning document updates and increased the planning factors in the MTP. An extension to SAFETEA-LU is on the horizon as the creation of the next transportation bill is underway.

1.2C MPO Structure



As defined by federal regulations, the MPO is "a forum for cooperative transportation decision-making for the metropolitan planning area" **(23 CFR Part 450.104)**. Thus, in addition to complying with federal regulations, another role of the MPO is to facilitate reaching consensus on transportation issues between the different entities and agencies, and to incorporate the will of the citizens of the region. Citizens participate in the planning process through the Public Involvement Process, and through their elected officials that make up the Technical Advisory sub-committees, Technical Advisory Committee (TAC), and the MPO Policy Board.

The Hidalgo County MPO utilizes subcommittees to deal with specialized issues and make recommendations to the TAC. The Technical Committee Chairman asks for volunteers to serve subcommittees to carry out the Technical Committee's tasks, as he/she deems necessary.

The Technical Advisory Committee was created for the purpose of making planning recommendations to the Policy Committee regarding MPO-generated documents, project selection criteria, special transportation planning studies and other issues for immediate action. The TAC Committee's membership consists of local officials and planners from the cities and the county within the MPO boundary.

The Transportation Policy Committee was created for the purpose of serving as spokespersons for the citizens of the county and cities in the metropolitan area. It is comprised of elected officials from each city of the MPO as well as Hidalgo County. Each

committee member has a certain number of votes based on the U.S. Census 2000 Population count. The quorum consists of 27 out of 54 possible votes and nine (9) members present. The Policy committee is responsible for policy-making in transportation planning issues. An updated list of the technical and policy committee members can be found under "Contributing Committee Members."

The MPO Staff have the duties of providing the TAC and Policy Committee with technical information, preparing the documents required by federal regulations, promoting and facilitating interaction between agencies and entities, and informing and educating the general public on issues related to the MPO transportation planning process.

MPOs are required to produce several documents as part of the transportation planning process that include:

- Metropolitan Transportation Plan (MTP), also known as the Long-Range Transportation Plan, which has a planning horizon of at least 20 years,
- Transportation Improvement Program (TIP), which has a planning horizon of no less than four years,
- Unified Planning Work Program (UPWP), which describes the transportation planning activities and studies to be performed by the MPO and other regional agencies in one fiscal year,

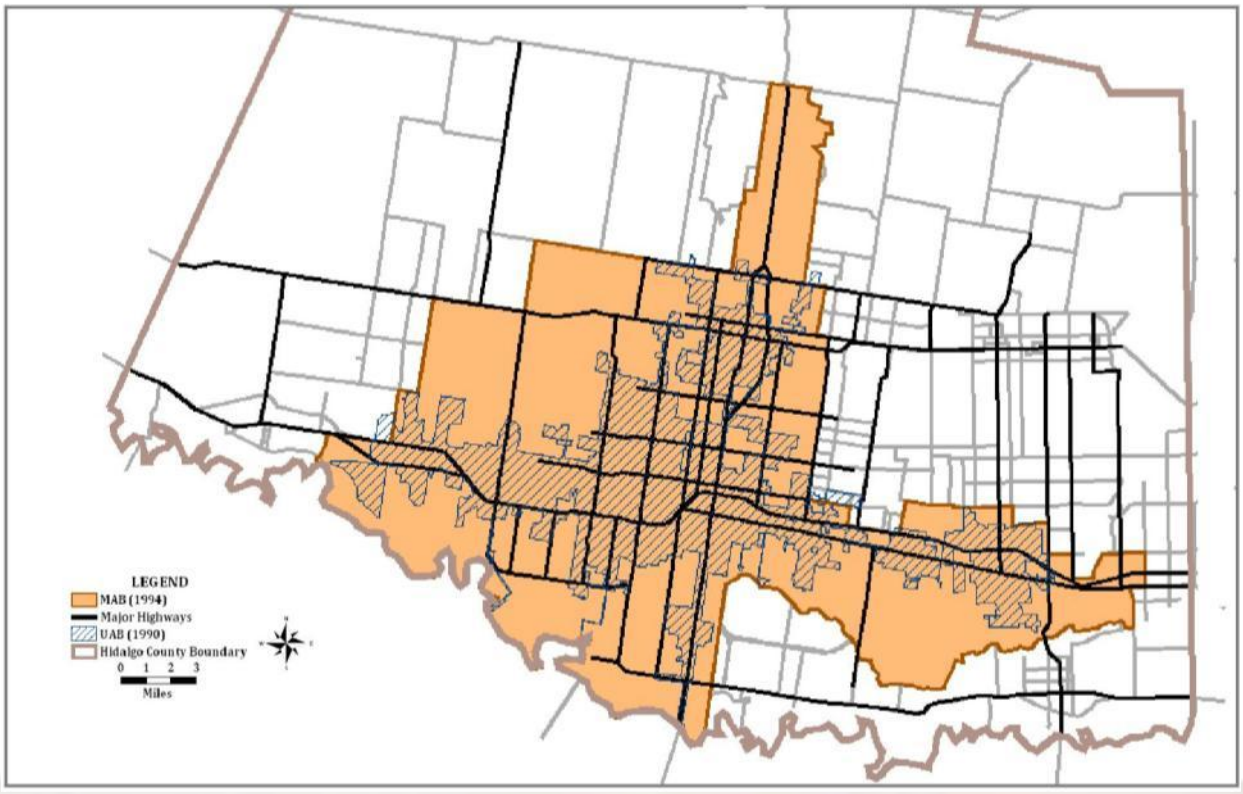
These documents are a product of the process that includes the participation of individual citizens, interest groups and government agencies from the local, county, state, and federal levels.

1.2D Study Area

Study areas utilized by the MPO are largely governed by the U.S. Census counts for population and density. An Urban Area Boundary (UAB) is an urbanized area defined by the U.S. Census based upon population per square mile density. The Metropolitan Area Boundary (MAB) is the forecasted area by 2030.

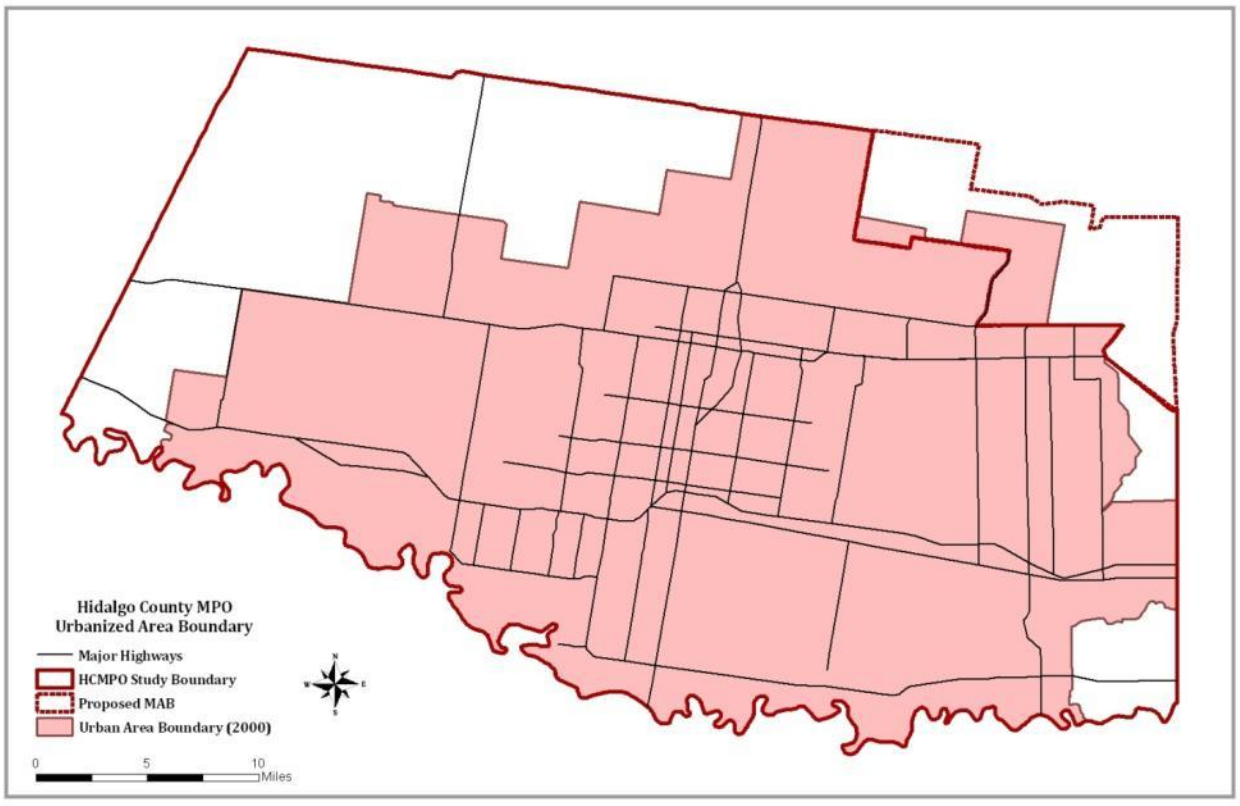
Figure 1.2.1 shows the ***study area*** boundaries (area shaded in **orange**) as they were in the 1999 MTP. In 1990, the ***urbanized*** **area** for the MPO was expanded as defined by the 1990 Census, and is represented by the **blue** shaded area.

Figure 1.2.1: 1990 Census Study and Urbanized Area



At the time of the 1990 census, the MPO was comprised of 338.7 square miles and had a population of 290,000 which made it the seventh largest TMA in Texas. After the 2000 Census was conducted, as shown in *Figure 1.2.2*, the urbanized area was updated to include 743.21 square miles and a population of almost 570,000, making it the 6th largest TMA in Texas. The Hidalgo County MPO has been among the top five (5) fastest growing metro areas in the U.S. every year since 1986. By comparing the blue area in the map above to the purple area in the map below, there is a clear increase in population from 1990 to 2000.

Figure 1.2.2: 2000 Census Study and Urbanized Area



Subsequent to the 2000 counts, the Census Bureau redefined the ***urbanized* area** boundary (UAB) as shown in *Figure 1.2.2*, (represented by the **pink** shaded area) and also shows the current metropolitan area boundary (MAB), or ***Study Area*** (outlined in **red**) which contains 929.05 square miles **(proposed 999.12 sq miles)**. This is the area expected to become urbanized in the twenty-five year planning period of this Plan. The Hidalgo County urbanized area currently includes the cities of Alamo, Alton, Donna, Edcouch, Edinburg, Elsa, Granjeno, Hidalgo, La Joya, La Villa, McAllen, Mercedes, Mission, Palmhurst, Palmview, Peñitas, Pharr, Progreso, Progreso Lakes, San Juan and Weslaco. The Hidalgo County MAB additionally includes Sullivan City and rural areas of Hidalgo County. A list of 2000 Census population data for each city listed above is shown in the following table. *(Table 1.2a)*

Table 1.2a: 2000 Census Population Counts

Entity	Population	Entity	Population
Alamo	14,760	Mercedes	13,649
Alton	4,384	Mission	45,408
Donna	14,768	Palmhurst	4,872
Edcouch	3,342	Palmview	4,107
Edinburg	48,465	Peñitas	1,167
Elsa	5,549	Pharr	46,660
Granjeno	313	Progreso	4,851
Hidalgo	7,322	Progreso Lakes	234
La Joya	3,303	San Juan	26,229
La Villa	1,305	Sullivan City	3,998
McAllen	106,414	Weslaco	26,935

With a population reaching the 600,000 mark, the Census Bureau ranks the McAllen Metropolitan Statistical Area (MSA) 74th out of 276 MSAs in the United States. In the state of Texas, McAllen is the 6th largest MSA after Dallas, Houston, San Antonio, Austin and El Paso.

1.3 MTP Federal Requirements

The Code of Federal Regulations (CFR) Title 23, Article 322 dictates that each region must develop a metropolitan transportation plan under the following guidelines:

- The metropolitan transportation planning process shall address no less than 20 years.
- The transportation plan shall include long-range and short-range strategies and actions to facilitate the safe and efficient movement of people and goods.
- The MPO shall review and update the transportation plan every 5 years.

- The MPO shall consult with State and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation concerning the development of the transportation plan.
- The MTP should include a safety element that incorporates the priorities, goals, or projects for the Metropolitan Planning Area (MPA) contained in the Strategic Highway Safety Plan (SHSP) as well as emergency relief and disaster preparedness plans, strategies and policies.
- The MPO shall provide citizens and stakeholders with reasonable opportunity to comment on the transportation plan using the existing participation plan.
- The metropolitan transportation plan shall be published and available for public review, including the Internet.
- The metropolitan transportation plan shall at a minimum include:
  - The projected transportation demand of persons and goods in the metropolitan planning area over the period of the transportation plan.
  - Existing and proposed transportation facilities including major roadways, transit, multimodal and intermodal facilities, pedestrian walkways and bicycle facilities, and intermodal connectors.
  - Operational and management strategies to improve the performance of existing transportation facilities.
  - Consideration of the results of the congestion management process.
  - Assessment of capital investment and other strategies to preserve the existing and projected future metropolitan transportation infrastructure, and provide for multimodal capacity increases based on regional priorities and needs.
  - Design concept and design scope descriptions of all existing and proposed transportation facilities in sufficient detail to develop cost estimates.
  - A discussion of types of potential environmental mitigation activities and potential areas to carry out these activities.
  - Pedestrian walkway and bicycle transportation facilities.
  - Transportation and transit enhancement activities.
  - A financial plan that demonstrates how the adopted transportation plan can be implemented
    - The financial plan shall contain system-level estimates of costs and revenue sources that are reasonably expected to be available.

- The MPO, public transportation operators, and State shall cooperatively develop estimates of funds that will be available to support the metropolitan transportation plan implementation.
- The financial plan shall include any additional financing strategies to fund projects and programs included in the metropolitan transportation plan.
- Starting December 11, 2007, revenue and cost estimates in the metropolitan transportation plan must reflect "year of expenditure dollars" based on reasonable financial principles and information.
- For the outer years of the metropolitan transportation plan, the financial plan may reflect aggregate cost ranges/cost bands, as long as the future funding sources are reasonably expected to be available.
- For illustrative purposes, the financial plan may include additional projects that would be included in the transportation plan if additional financial resources were to become available.

1.4 SAFETEA-LU Requirements

On August 10th, 2005, the President signed into law the **Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).** With guaranteed funding for highways, highway safety, and public transportation totaling $244.1 billion, SAFETEA-LU represents the largest surface transportation investment in our nation's history. The two landmark bills that brought surface transportation into the 21st century, the ISTEA and TEA-21, shaped the highway program to meet the nation's changing transportation needs. SAFETEA-LU builds on this firm foundation, supplying the funds and refining the programmatic framework for investments needed to maintain and grow our vital transportation infrastructure.

SAFETEA-LU addresses the many challenges facing our transportation system today, challenges such as improving safety, reducing traffic congestion, improving efficiency in freight movement, increasing intermodal connectivity, and protecting the environment, as well as laying the groundwork for addressing future challenges. SAFETEA-LU promotes more efficient and effective Federal surface transportation programs by focusing on transportation issues of national significance, while giving State and local transportation decisions makers more flexibility for solving transportation problems in their communities.

SAFETEA-LU implements the following requirements for the metropolitan transportation planning process.

Article 306.

The scope of the metropolitan transportation planning process shall be continuous, cooperative, and comprehensive, and provide for consideration and implementation of projects, strategies, and services that will address the following factors:

- ✓ Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency
- ✓ Increase the safety of the transportation system for motorized and non-motorized users
- ✓ Increase the security of the transportation system for motorized and non-motorized users
- ✓ Increase accessibility and mobility of people and freight
- ✓ Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns
- ✓ Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight
- ✓ Promote efficient system management and operation
- ✓ Emphasize the preservation of the existing transportation system

Article 308.

The metropolitan transportation planning activities performed with funds provided under title 23 USC and Title 49 USC shall be documented in the UPWP that includes a discussion of the planning priorities facing the MPA. The UPWP shall identify work proposed for the next one or two-year period by major activity and task in sufficient detail to indicate who will perform the work, the schedule for completing the work, the resulting products, the proposed funding by activity/task, and a summary of the total amounts and sources of Federal and matching funds.

Article 316.

The MPO shall develop and use a documented participation plan that defines a process for providing citizens, affected public agencies, representatives of public transportation employees, freight shippers, providers of freight transportation services, private providers of transportation, users of public transportation, users of pedestrian walkways and bicycle transportation facilities, disabled and other interested parties with reasonable

opportunities to be involved in the metropolitan transportation planning process. The MTPs and TIPs shall be developed with due consideration of other related planning activities within the metropolitan area.

The participation plan shall be developed by the MPO in consultation with all interested parties and shall at a minimum describe explicit procedures, strategies and desired outcomes for:

- ✓ Providing adequate public notice of public participation activities and time for public review and comment
- ✓ Providing timely notice and reasonable access to information about transportation issues and processes
- ✓ Employing visualization techniques to describe metropolitan transportation plans and TIPs
- ✓ Making public information available electronically with accessible formats such as the Internet
- ✓ Holding any public meetings at convenient and accessible locations and times
- ✓ Demonstrating explicit consideration and response to public input received during the development of the metropolitan transportation plan and the TIP
- ✓ Seeking out and considering the needs of those traditionally underserved by existing transportation systems, such as low income and minority households
- ✓ Periodically reviewing the effectiveness of the procedures and strategies contained in the participation plan to ensure a full and open participation process

When significant written and oral comments are received on the draft metropolitan transportation plan or the TIP, a summary, analysis, and report on the disposition of comments shall be made as part of the final MTP or TIP. A minimum public comment period of 30 calendar days shall be provided before the initial or revised participation plan is adopted by the MPO.

Article 320.

The transportation planning process in a TMA shall address congestion management through a process that provides for safe and effective integrated management and operation of the multimodal transportation system based on a cooperatively developed and implemented metropolitan-wide strategy through the use of travel demand reduction and operational management strategies. The development of a CMP should result in

multimodal system performance measures and strategies that can be reflected in the MTP and the TIP. The consideration should be given to strategies that manage demand, reduce single occupant vehicle (SOV) travel, and improve transportation system management and operations. The CMP shall be developed, established, and implemented as part of the metropolitan transportation planning process that includes coordination with transportation system management and operations activities.

The CMP shall include:

- ✓ Methods to monitor and evaluate the performance of the multimodal transportation system, identify the causes of recurring and non-recurring congestion, identify and evaluate strategies, provide information supporting the implementation of actions, and evaluate the effectiveness of the implemented actions.
- ✓ Definition of congestion management objectives and performance measures to assess the extent of congestion and support the evaluation of the effectiveness of congestion reduction and mobility enhancement strategies for the movement of people and goods.
- ✓ Establishment of a coordinated program for data collection and system performance monitoring to define the extent and duration of congestion, to contribute in determining the causes of congestion, and evaluate the efficiency and effectiveness of the implemented actions. To the extent possible, this data collection program should be coordinated with existing data sources (including archived operational/ITS data).
- ✓ Identification and evaluation of the anticipated performance and expected benefits of appropriate congestion management strategies that will contribute to the effective use and improved safety of existing and future transportation systems based on established performance measures.
- ✓ Identification of an implementation schedule, implementation responsibilities and possible funding sources for each strategy proposed for implementation

Article 322.

The MTP should be developed following the following guidelines:

- ✓ The MTP should address no less than 20 years.
- ✓ The transportation plan shall include both long-range and short-range strategies/actions that lead to the development of an integrated multimodal

transportation system to facilitate the safe and efficient movement of people and goods in addressing current and future transportation demand.

- ✓ The MPO shall review and update the transportation plan at least every five years.
- ✓ In updating the transportation plan, the MPO shall base the update on the latest available estimates and assumptions for population, land use, travel, employment, congestion, and economic activity.
- ✓ The MPO shall consult with State and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation concerning the development of the transportation plan.
- ✓ The MTP should include a safety element that incorporates or summarizes the priorities, goals, countermeasures, or projects for the MPA contained in the SHSP as well as emergency relief and disaster preparedness plans, strategies and policies.
- ✓ The MPO shall provide citizens and stakeholders with a reasonable opportunity to comment on the transportation plan using the existing participation plan.
- ✓ The MTP shall be published or made available by the MPO for public review by either posting on the website or for download from the ftp site.
- ✓ The MTP shall at a minimum include:
    - The projected transportation demand of persons and goods in the metropolitan planning area over the period of the transportation plan.
    - Existing and proposed transportation facilities including major roadways, transit and multimodal such as: intermodal facilities, pedestrian walkways bicycle facilities, and intermodal connectors.
    - Operational and management strategies to improve the performance of existing transportation facilities.
    - Consideration of the results of the CMP.
    - Assessment of capital investment and other strategies to preserve the existing and projected future metropolitan transportation infrastructure.
    - Design concept and design scope descriptions of all existing and proposed transportation facilities in sufficient detail to develop cost estimates.
    - A discussion of types of potential environmental mitigation activities and potential areas to carry out these activities.
    - Pedestrian walkway and bicycle transportation facilities.
    - Transportation and transit enhancement activities.
    - A financial plan that demonstrates how the adopted transportation plan can be implemented. The financial plan shall contain system-level estimates of costs and revenue sources that are reasonably expected to be available. The

financial plan shall include any additional financing strategies to fund projects and programs included in the metropolitan transportation plan. Starting December 11, 2007, revenue and cost estimates in the MTP must reflect "year of expenditure dollars" based on reasonable financial principles and information. For illustrative purposes, the financial plan may include additional projects that would be included in the transportation plan if additional financial resources were to become available.

Article 324.

The MPO, in cooperation with the State and any affected public transportation operators, shall develop a TIP for the metropolitan planning area. The TIP has to be developed by the following guidelines:

- ✓ The TIP shall cover a period of no less than four years, and be updated at least every two years.
- ✓ The MPO shall provide all interested parties with reasonable opportunity to comment on the proposed TIP.
- ✓ The TIP shall be published or otherwise made readily available by the MPO for public review by posting on the website.
- ✓ Each project or project phase included in the TIP shall be consistent with the approved MTP.
- ✓ The TIP shall include a financial plan that demonstrates how the approved TIP can be implemented, indicates public and private sources that are reasonably expected to be made available, and recommends any additional financing strategies for needed projects and programs.
- ✓ For purposes of transportation operations and maintenance, the financial plan shall contain system-level estimates of costs and revenue sources that are reasonably expected to be available. The financial plan may include additional projects that would be included in the TIP if reasonable additional resources were to become available.
- ✓ The TIP shall include a project, or a phase of project, only if full funding can be anticipated for the project within the time period for completion of the project.
- ✓ Financial constraint shall be demonstrated and maintained by year and shall include sufficient financial information to demonstrate which projects are to be implemented. In the case of proposed funding sources, strategies for ensuring their availability shall be identified in the financial plan.

- ✓ The TIP should identify the criteria and process for prioritizing the transportation plan elements for inclusion in the TIP and any changes in priorities from previous TIPs, it should list major projects from the previous TIP that were implemented and identify any significant delays in the planned implementation of major projects.
- ✓ The TIP shall include, for each project or phase the following:
    - Sufficient descriptive material to identify the project or phase
    - Estimated total project cost, which may extend beyond the four years of the TIP
    - The amount of Federal funds proposed to be obligated during each program year for the project or phase.
    - Identification of the agencies responsible for carrying out the project or phase.

Article 332.

Annual Listing of obligated projects:

a) In metropolitan planning areas, on an annual basis, no later than 90 calendar days following the end of the program year, the State, public transportation operators, and the MPO shall cooperatively develop a listing of projects (including investments in pedestrian walkways and bicycle transportation facilities) for which funds were obligated in the preceding program year.
b) The listing shall include all federally funded projects authorized or revised to increase obligations in the preceding program year, and shall at a minimum identify, for each project, the amount of Federal funds requested in the TIP, the Federal funding that was obligated during the preceding year, and the Federal funding remaining and available for subsequent years.
c) The listing shall be published or otherwise made available in accordance with the MPOs public participation criteria for the TIP.

Article 334.

Self-certifications and Federal certifications:

a) For all MPAs, concurrent with the submittal of the entire proposed TIP to FHWA and FTA as part of the State Transportation Improvement Program (STIP) approval, the State and the MPO shall certify at least every four years that the

metropolitan transportation planning process is being carried out in accordance with all applicable requirements.

b) In TMAs, FHWA and FTA shall jointly review and evaluate the transportation planning process for each TMA no less than once every four years to determine if the process meets the requirements of applicable provisions of Federal law.

1.4A SAFETEA-LU Planning Factors

According to the Code of Federal Regulations (CRFR), Title 23, Part 450, Subpart B, Article 306, "***the metropolitan transportation planning process shall be continuous, cooperative and comprehensive, and provide for consideration and implementation of projects, strategies, and services that will address the following planning factors:"***

Factor 1. Support the economic vitality of the United States, the States, metropolitan areas, and non-metropolitan areas, especially by enabling global competitiveness, productivity, and efficiency

Factor 2. Increase the safety of the transportation system for motorized and non-motorized users.

Factor 3. Increase the security of the transportation system for motorized and non-motorized users

Factor 4. Increase accessibility and mobility of people and freight.

Factory 5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvement and State and local planned growth and economic development patterns.

Factor 6. Enhance the integration and connectivity of the transportation system, across and between modes throughout the State, for people and freight.

Factor 7. Promote efficient system management and operation.

Factor 8. Emphasize the preservation of the existing transportation system.

2.0 Need for Area Plans

The goals of the MTP, as established in statutory language are to relieve congestion, improve safety; quality of life; air quality, and opportunities for economic development. This plan serves as a comprehensive, multimodal blueprint for transportation systems, and is based on the basic concepts of planning, funding, and streamlined project delivery.

A legislative requirement for the MTP under TEA-21 is that the long range transportation process ensures that projects programmed in the plan be financially feasible. In this plan, local, state, federal, and private sector funding sources are reviewed for their feasibility. Under this plan there are some fundamental factors (procedural & specific) that mandate the MPO to address the overall, economic, energy, and environmental effects of transportation decisions. Other factors require the MPO to consider the symbiotic nature of transportation and land use planning and policy decisions. The MPO's plan requires that the transportation plan be consistent with federal, state, and local conservation goals. Furthermore, the plans also require preserving existing systems and utilizing them to the fullest and that the MPO consider energy conservation as project selection criteria. Finally, the State of Texas requires that all TMA's maintain a CMP.

Historical population data is presented to show the growth of the county as a whole and be able to depict growth trends for this region. The area geographically experiences development of increased retail industry versus its economic activity in agriculture. Population is determined in this section as in any region by the life and death differences and the relocation to and from the area as well. Historical growth trends comparisons to state and national levels are illustrated. Census figures are calculated and adjusted to household income allowing the HCMPO to demonstrate economic levels for this region. This data collected over time was utilized to determine the growth trends in the number of households vs. population. Historically this county has shown a consistent growth increase and maintained a 4% + growth rate to be named the fastest growing county in the U.S. Section 2.3 will include the distribution of employment by economic sector in 2000 to 2035 respectively.

In all accounts, the MPO is required by law to produce a transportation plan, which contributes toward solving air pollution problems. The ISTEA required all MPO's to comply with the Clean Air Act Amendment, (CAAA) during any transportation planning. Furthermore, the TEA-21 continues to maintain that requirement. There are consequences in failure to comply with this regulation. This section will also underline a problem that is

unique to Border TMA's. This problem is not only unique, but has increased dramatically as shown by comparison figures on tables illustrating northbound and southbound traffic.

The TEA-21 continued a framework for federal surface transportation policy while the Nation waited in 2004 for a Federal Highway Bill. TEA-21 continued with many of ISTEA requirements, but went beyond the scope of planning provisions as shown in this section. The most significant change in transportation planning requirements was the consolidation of 16 metropolitan and 23 statewide planning factors into seven "areas" of concern which are listed in this section. Four of the seven factors deal with environmental issues. TEA-21 placed a key priority during any transportation planning project to protect the environment and public health. TEA-21's strongest push was to streamline environmental reviews. Section 2.5 on Environmental Issues addresses the differences between the Federal Highway Administration and the Department of the Interior when it comes to Environmentally Sensitive Areas.

On July 22nd of 2004 the House and Senate passed the extension for the Highway Program. SAFETEA-LU proposed to implement many new strategies and build upon existing ones in place to enhance the quality of life. The Federal Transportation Programs are made smarter guided not by process but by performance. The list of initiatives is listed in this section. SAFETEA-LU would authorize a $425 million grant, establish a ridership based Performance Incentive Program, expand the scope of innovative financing programs, and increase the investments of private capital into surface transportation systems. SAFETEA-LU would provide for these incentives and many more detailed in this section to strengthen the performance and operation of the transportation system.

The Travel Demand Model (TDM) is a powerful tool used to address the challenge of forecasting what the travel patterns of the population will be during the next 25 years. Forecasting methodologies provide solutions in anticipation to potential congestion problems for the transportation network in the future. Section 2.7 outlines the TDM's three step process utilized by the MPO. There are two main inputs that are required to execute the model for each network; the physical characteristics and operational attributes of the transportation network, and the demographic profile of the population. The demographic data used to develop a socio-economic profile of the population is discussed in detail within this section. Congestion is when existing conditions make vehicles flow slower than desired and less comfortably. A technical method of measuring congestion is by determining V/C ratio of a specific segment of road or highway. The formula and the Level of Service (LOS) for roads and / or highways can be obtained within this section.

The MPO approved the "Metropolitan Transportation Plan" for Hidalgo County on December 10th, 2009. Major goals of the 2005 plan were to have a "Balanced Transportation System". This plan called for the development of alternative modes of transportation which are discussed in greater detail in Chapter 4. Other goals for this plan are "Provide equal accessibility" for all persons and "Preserve and Protect the Natural Environment to name a few, complete details regarding the goals and objectives for the 2005 Plan are expressed in this section of Chapter 2. The 2000 & 2005 Plans called for "Establishing Data Collection and Monitoring Systems". In 1994 the MPO lacked the comprehensive data necessary to establish baseline levels for various functions of the transportation system. Today, the MPO has established a working transportation model, a Pavement Management System (PMS), a CMP, and an Incident Management Program (IMP) as a partnership with local Law Enforcement Agencies to promote safety. In addition; the MPO assisted the US Census Bureau with the 2000 Census statistical data.

2.1 Texas Metropolitan Mobility Plan (TMMP)

The TMMP is the result of the Texas Legislature's HB 3588 that passed in 2003. The TMMP addresses a statewide initiative to quantify long-range needs within the larger metropolitan areas of the state and to develop a shorter range prioritized listing of projects aimed at improving mobility and air quality impacts as well as reducing traffic congestion. The TMMP is a state-based initiative that requires each of the eight (8) major metropolitan areas of Texas to develop locally conceived, comprehensive regional mobility plans to improve traffic flow. The metropolitan areas include Austin, Corpus Christi, North Central Texas (Dallas- Fort Worth), El Paso, Lubbock, Hidalgo County, Houston-Galveston, and San Antonio.

Historically, all of the major metropolitan areas across the state have experienced consistent growth trends without adequate funding needed to increase the capacity of the transportation system, resulting in loss of productivity, air quality implications, increased costs for services and goods, and a diminished quality of life. The Texas Transportation Commission has indicated that it is time to change the way Texas plans, funds and delivers transportation systems in metropolitan areas. These individual plans will be implemented through a regional baseline allocation of Texas Department of Transportation's (TxDOT) Metropolitan Mobility Funds (Category 2) and locally generated "gap funding." "Gap funds" can be derived from any locally generated source, such as tolls or a local option user fee.

The Hidalgo County area has grown dramatically since the 1980s and demographic projections indicate that it is on track to reach a total of one (1) million residents by 2025.

The dramatic growth of the region will have significant accessibility, mobility, and economic implications. The current travel trends include an increase in automobile ownership; drive alone travel, and suburbanization, which results in an increase in the number and length of trips. If these trends continue, more travel will be a result, as well as increased traffic congestion and negative air quality impacts. We will have to accommodate the trips of the one (1) million residents on an already heavily burdened transportation network unless the region starts to strategize about sustainable ways to absorb and deter the increased travel demand. Toward this end, the TMMP contains programs, projects, policies, and partnerships aimed at balancing transportation and land use decisions in a way that provides for growth while minimizing transportation-related externalities. In short, the TMMP seeks to quantify additional needs beyond HCMPO's financially constrained 2035 MTP.

The goals of the TMMP, as established in statutory language of HB 3588, are to:

- Relieve congestion;
- Improve safety;
- Improve quality of life;
- Improve air quality; and
- Improve opportunities for economic development.

The TMMP addresses a statewide initiative to quantify long range needs within the larger metropolitan areas of the state and to develop a shorter range prioritized listing of projects aimed at improving mobility and reducing traffic congestion and air quality impacts. This Plan serves as a comprehensive, multimodal blueprint for transportation systems and services within the Hidalgo County Metropolitan Area. It recognizes the heightened awareness of the growing concerns for improved air quality, public acceptance of major transportation facilities, and the need for adequate financial resources for plan implementation.

According to the 2000 Census, approximately 60 percent of all Texans live in the State's eight major metropolitan areas and are defined as those areas with populations exceeding 200,000. The eight major metropolitan areas include Austin, Corpus Christi, North Central Texas (Dallas-Fort Worth), El Paso, Lubbock, Hidalgo County, Houston-Galveston, and San Antonio. The cumulative population of these eight metropolitan areas is more than 12.4 million. TxDOT has estimated that congestion in Texas metropolitan areas cost the state over $45 billion between 1990 and 2000 in terms of delay and wasted fuel.

The TMMP is a state-based initiative that will result in each of the eight major metropolitan areas developing locally conceived, comprehensive regional mobility plans to improve traffic flow by using all modes of transportation. These individual Plans will be implemented through a regional, baseline allocation of TxDOT metropolitan mobility funds and locally generated "gap" funding.

All of the major metropolitan areas throughout the state have experienced significant increases in traffic congestion over the last decade, resulting in steadily increased travel times, decreased mobility, driver frustration, and worsened air quality. Traffic congestion is on the rise, largely in response to steady increases in employment opportunities and additional population relocating to the urbanized areas of the state. Traffic congestion threatens public safety, the state's economic vitality, and the quality of life for millions of people.

Hidalgo County is one of the fastest growing areas in the U.S. Year 2000 Census data shows that the McAllen Metropolitan Area is among the fastest growing metropolitan areas in the country with a growth rate of more than twice that of most areas. Today, it is the 6th largest metropolitan area in Texas, making the region among the most attractive U.S. metropolitan areas for corporate expansions and relocations. By the year 2035, Hidalgo County will be the 5th largest metropolitan area in Texas.

The dramatic growth of the region will have significant accessibility, mobility, and economic implications. The current travel trends include an increase in automobile ownership; drive alone travel, and suburbanization, which results in an increase in the number and length of trips. If these trends continue, the result will be more travel, which will lead to increased traffic congestion and negative air quality impacts. Unless a way to modify the travel characteristics of the residents in the region is found, an already overburdened transportation system will have to absorb this increase in travel. To this end, the Texas Metropolitan Mobility Plan contains plans, programs, projects, policies, and partnerships aimed at balancing transportation and land-use decisions in a way that accommodates growth while minimizing any negative transportation, air quality, and community impacts. The TMMP balances the goals of the region through a diversified approach of short and long-range modal strategies.

Historically, all of the major metropolitan areas across the state have experienced consistent growth trends without adequate funding needed to increase the capacity of the transportation system, resulting in loss of productivity, air quality implications, increased costs for goods and services, and a diminished quality of life for all Texas. The Texas

Transportation Commission has indicated that it is time to change the way Texas plans, funds and delivers transportation systems in metropolitan areas. It is imperative that regional solutions be developed at the local level, by local governments, agencies, and elected officials responsible for setting funding priorities and that those individuals be given the tools to deliver transportation improvements in a timely fashion, in response to the growing demand for services.

From a larger statewide perspective, the intrastate movement of people and goods is being addressed through the adoption of the Trans Texas Corridor System. This is a bold, state-wide initiative focused on improving safety, reducing regional congestion, diverting long-haul and hazardous materials from entering population centers, creating a comprehensive rail system, providing underdeveloped areas of the state access to competitive utility service, and ultimately improving air quality throughout the state. A similar bold approach is needed to solve travel needs in the larger metropolitan areas.

The TMMP is that bold approach. It presents a framework in each of the eight largest metropolitan areas in the state to provide for the remaining intra-city needs, and is based on the basic concepts of planning, funding, and streamlined project delivery.

2.1A Adopted Goals of the TMMP

Relieve Congestion

One of the underlying goals of this planning exercise is to identify long range needs in each metropolitan area to help solve transportation problems, with an ultimate goal being an increase in mobility and a decrease in the level of traffic congestion. To help in quantifying this goal and measuring progress over time, TxDOT will adopt a Texas Congestion Index (TCI) to aid the metropolitan areas in setting goals for congestion reduction and will be based on the delay time experienced by drivers.

Enhance Safety

Another major goal of the TMMP is to include safety considerations into the plan development process, and to look for ways to provide a safer and more reliable transportation system. Each Regional Mobility Plan will address specific goals, which could include:

- Separation of truck and personal-vehicle traffic on high-speed metropolitan corridors
- Reduction of fatal or injury crashes, including at-grade railroad crossings

- Improved safety in metropolitan areas with transit systems
- Improved security for freight arriving from foreign ports
- Reduction in vehicle-bicycle and vehicle-pedestrian fatalities and injuries

Improve Air Quality

Air quality has steadily become a major concern for most of the larger metropolitan areas across the state. HCMPO, serving as the MPO for the McAllen Metropolitan Area, is responsible for conducting the regional planning process for all modes of transportation, including conducting the regional air quality analysis required by state and federal mandates. Each Regional Mobility Plan will assess the impact on air quality attributed to the recommendations and results of this needs-based planning effort. Since McAllen is in full attainment status, this analysis is intended to replace the mandated air quality conformity analysis. Each Regional Mobility Plan will establish the improvement of air quality as a goal in conformity with established guidelines and processes.

Improve Quality of Life

Regarding quality of life considerations, it is recognized that while transportation investment directly impacts such things as urban mobility, air quality, and economic development, there are less direct, but equally important impacts of transportation systems and services, which address quality-of-life impacts of proposed projects and approaches. The issues and goals identified below direct planning efforts to consider urban form and transportation's impact upon the economy and the environment, but also the provision of transportation services and infrastructure to those traditionally underserved.

- Promote the orderly economic development of the region
- Encourage balanced land-use and transportation plans and programs which maximize the use of transportation investments
- Provide transportation opportunities to the traditionally underserved
- Support recreation and tourism
- Avoid, mitigate, and enhance the environmental impacts of transportation improvements
- Reduce energy consumption
- Address the transport of hazardous-materials within and throughout the region
- Strive to provide access to various modes of transportation

- Avoid, mitigate, and enhance the effects of noise and aesthetic efforts

Improved Opportunities for Enhanced Economic Development

In essence, the way transportation is planned, programmed, and constructed in this region must be responsive to regional trends in economic expansion, population growth, development, public health, and the environment in order to provide mobility, improve the region's air quality status, and avoid a risk of sanctions on federal transportation funds. Promoting improved opportunities for enhanced economic development is a specific goal of this plan because of the direct link between land use, transportation, and air quality.

Enhance Infrastructure Maintenance

A key component which must be considered during the development of the TMMP is not only what the future needs are for each region, but also what the magnitude of infrastructure is that must be maintained over time to ensure proper functioning and usability of the system without any degradation of service. This must include not only the existing transportation system, but also future facilities, because once they are constructed, a dedicated source to support their maintenance must also exist.

Streamline Project Delivery

Another key concept to consider is a way to provide for a more streamlined process for project delivery. Public-private partnerships and more efficient cash-flow management techniques are two possibilities to consider which could provide more timely delivery of improvements. Other innovative tools for project delivery could include:

- Increase the southbound toll at all international bridges in Hidalgo County
- Increase the city's local sales tax in Hidalgo County
- Increase the local hotel tax in Hidalgo County
- Increase the vehicle registration fee in Hidalgo County
- Improved environmental review to reduce project-development and approval timelines
- Unrestricted use of the authority in comprehensive development agreements
- Specific exemption from the current restricting on toll equity for toll projects in urban areas
- Institute the concept of "pass-through tolling" for the TxDOT portion of metropolitan projects

- Seek blanket approval to add toll lanes to existing highways
- Institute policies for allowing metropolitan areas to receive fund credits for their expenditures to construct off-state system projects
- Streamline state and federal oversight roles for small off-state system projects

TxDOT Strategic Goals

The final goal of the Regional Mobility Plan development process is to fully consider the strategic goals adopted by TxDOT and to use those goals as a guide for developing a framework for this report.

Relationship to the Metropolitan Transportation Plan

The MPOs across the state have been preparing long-range MTPs for many years now, in order to address and meet state and federal planning requirements. However, the needs-based TMMP is a new statewide requirement focused specifically at the larger metropolitan areas over 200,000 in population. There are many similarities between these two planning documents and both are goal oriented toward reducing congestion and improving mobility and air quality.

The MTP is a comprehensive, multimodal blueprint for transportation systems and services aimed at meeting the mobility needs of the McAllen Metropolitan Area and serves as a statement for the ways the region plans to invest in the transportation system over the next 20 years. The MTP, identified as the Hidalgo County MTP: 2009 Update, includes both long and short-range policies, strategies, and projects that lead to the development of an integrated inter-modal transportation system that facilitates the efficient movement of people and goods. The MTP guides the expenditure of more than $1 Billion of federal, state and local funds expected to be available for transportation improvements through the year 2035. The MTP is required to be financially-constrained and balanced to anticipate revenue streams over time, one of the most important aspects is the identification and analysis of the financial resources available to implement its recommendations. Due to the financially-constrained requirement, the MTP does not address or quantify unmet funding needs and does not typically look beyond what can be achieved with the amount of available funding, resulting in a realistic, yet constrained picture.

The TMMP is a state-wide requirement intended to serve as a framework for identifying unmet transportation needs in the state's larger metropolitan areas. The TMMP requires

the eight transportation management areas (TMAs) in Texas to develop a comprehensive, locally developed, visionary, realistic, and financially unconstrained plan identifying only what can be afforded given anticipated funding streams and goes one step further to become a needs-based plan which quantifies transportation needs beyond the fiscal constraint barrier. Instead of taking a conservative approach and focusing only on what funding can be predicted to be available, the TMMP focuses on the magnitude of unmet needs and provides decision-makers with a better feel for the total transportation needs of each region and shows that mobility needs are not adequately being met and that additional funding is needed.

Texas Congestion Index: Definition

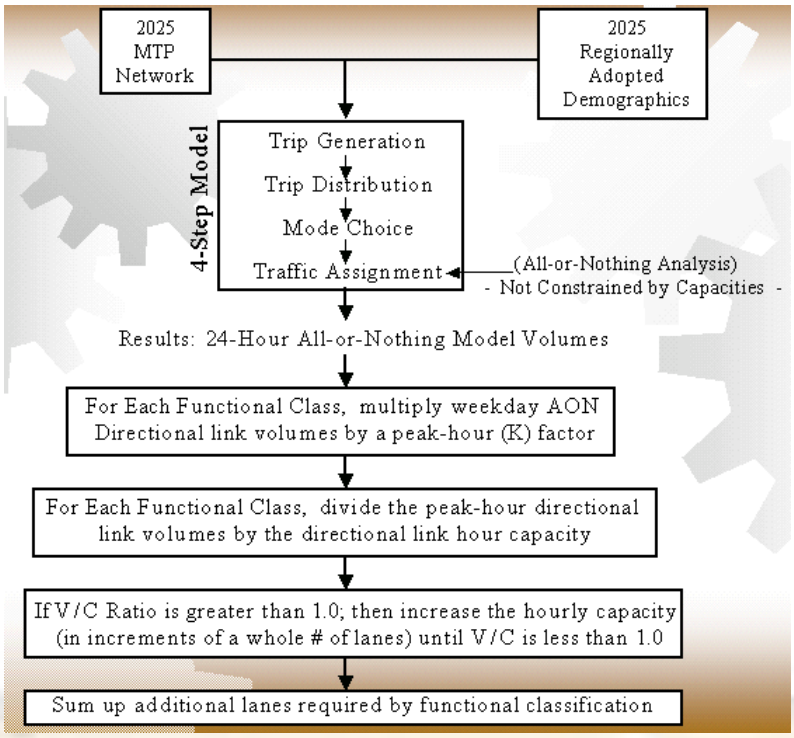
In order to begin identifying the magnitude of unmet needs throughout the state, an innovative planning tool, the TCI, was created to serve as a single performance measure for calculating levels of congestion. This index will use currently existing data and models that have been produced for other purposes to generate congestion-index statistics. The TCI will measure the mobility of people and goods in each Texas metropolitan area, with attention to the delay time experienced by drivers. For example, a possible target congestion index of 1.15 means that a peak-period trip would take no more than 15 percent longer than off-peak travel.

A single index can obscure some elements or characteristics; therefore the TCI process creates several measures aimed at assessing various elements of metropolitan transportation services. The index will help evaluate the programs and the strategies that should be pursued to accomplish mobility objectives. It is designed to complement existing tools, procedures, measures and practices to improve congestion relief analysis.

Basic Process for Development

The planning process that drives the TMMP was developed through a joint coordinated effort between the TxDOT, the MPOs representing the eight Transportation Management Areas (TMA), and the Texas Transportation Institute (TTI). Based on the guidance issued by TxDOT and its commission, the specific elements of the TMMP were identified and detailed processes were developed so that each MPO would be able to follow the exact same process, providing a consistent level of analysis across the state. From a technical standpoint, detailed travel demand models were used to help identify and solve for the various levels of congestion and were used as direct input into the calculation of the TCI values. The basic process is reflected in the following graph. (*Figure 2.1.1*)

Figure 2.1.1: Process for TMMP Development



Transportation Management Area

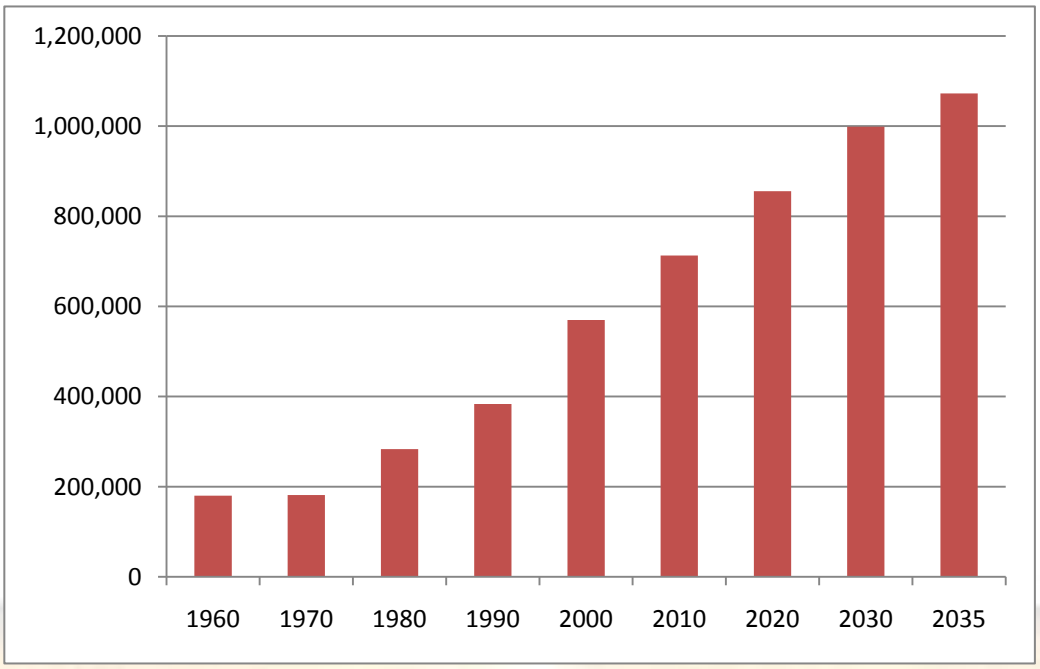
Each of the eight TMAs across the state have specific planning area boundaries related to their MPO functions. Within the McAllen Metropolitan Area, the planning used for this planning exercise includes the cities of Alamo, Aton, Donna, Edcouch, Edinburg, Elsa, Granjeno, Hidalgo, La Joya, La Villa, McAllen, Mercedes, Mission, Palmhurst, Palmview, Peñitas, Pharr, Progreso, Progreso Lakes, San Juan, Sullivan City and Weslaco. The McAllen Metropolitan Area is among the largest regional economies along the Texas-Mexico border. Larger in population than more than three U.S. states, the region is a significant economic, social, and political center for Texas and the U.S., with substantial growth in population and employment expected to continue. By the year 2030, Hidalgo County is expected to grow to include approximately one million persons.

Demographics

The McAllen Metropolitan Area is one of the most rapidly growing areas in the U.S. The year 2000 Census data shows that Hidalgo County is the seventh largest county in the state

with a growth rate more than twice that of the state of Texas. Larger today in population than 3 states and as the 6th largest metropolitan area in Texas, the McAllen area is a major economic and social force.

Table 2.1a: Hidalgo County Regional Growth Trends (U.S. Census)



Growth in population and employment is a primary reason for increased congestion in the nation's metropolitan areas. As of April 2000, the estimated population of Hidalgo County was 569,000; an increase of 49 percent since 1990, which is almost 4 times the national average. These demographic projections drive the travel forecasting process by providing information regarding future locations of population and employment which generate increased travel.

Table 2.1b: Projected Demographic Growth (U.S. Census)

	2000	2005	2010	2015	2020	2025	2030	2035
Population (in thousands)	569	628	678	749	830	926	998	1,072
Households (in thousands)	181	194	213	234	257	271	297	316
Employment (in thousands)	154	158	183	202	325	250	272	292

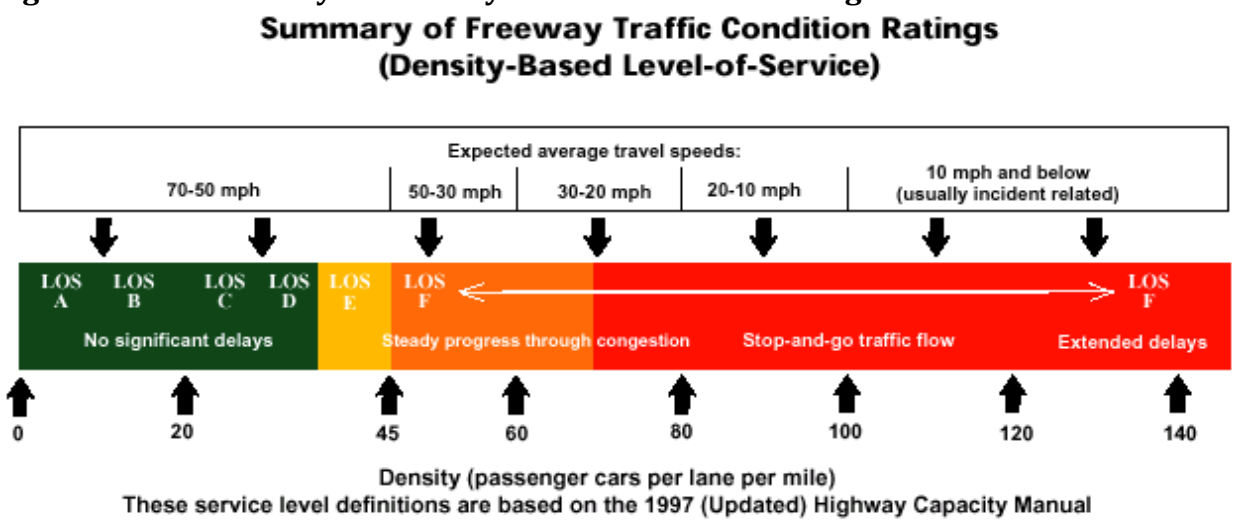
Travel Forecasting Model

The forecasting technique of the Hidalgo County Regional Travel Model is based on a three-step sequential process designed to model travel behavior and predict the level of travel demand at the regional, sub-area, or small area levels. The travel modeling process begins with estimating trip frequency, or trip generation, which converts population and employment data to a total number of weekday person trips produced by and attracted to each zone. A regional zone system was developed to represent aggregations of population and employment activity and travel within the region. In the second step of the process, the trip distribution model uses roadway zone-to-zone travel time information to distribute the trip productions and attractions from trip generation to and from each zone to estimate the weekday travel patterns between each zone. The final model step consists of roadway assignments. The roadway assignments take origin-destination vehicle trips and load them onto the roadway network. The vehicle trips are loaded onto the roadway network based on an incremental capacity-constrained procedure in which the travel speed on the roadway is decreased according to a volume-delay relationship. The results of the travel model are input directly into the TCI model to calculate a corresponding TCI value.

Target Mobility Level

The TCI is a variation of the Travel Time Index developed by the TTI for the Annual Urban Mobility Report. This index compares the travel time in the peak period to the travel time that would be required for the same travel at free-flow speeds. This formula identifies the travel time penalty for peak period congestion. The value is a ratio with a practical minimum value of 1.0, which indicates that a peak period trip requires 30 percent more time than the same trip at free-flow speeds. In essence, a 20 minute off-peak trip would require 26 minutes in the peak period. The graph (*Figure 2.1.2*) on the following page shows the relationship between average travel speeds and levels of congestion, indicated by the colored shading.

Figure 2.1.2: Summary of Freeway Traffic Condition Ratings



The Level of Service (LOS) "F" conditions begin when freeway speed enter a range between 50- 30 miles an hour. As an initial starting place for this first round of TMMP development, it was agreed upon that all the MPOs would identify a target level of congestion consistent with eliminating and removing all level of service "F" conditions region wide. In order to accomplish this goal and to identify this target level of congestion, each MPO ran the travel demand model four times to produce the following scenarios:

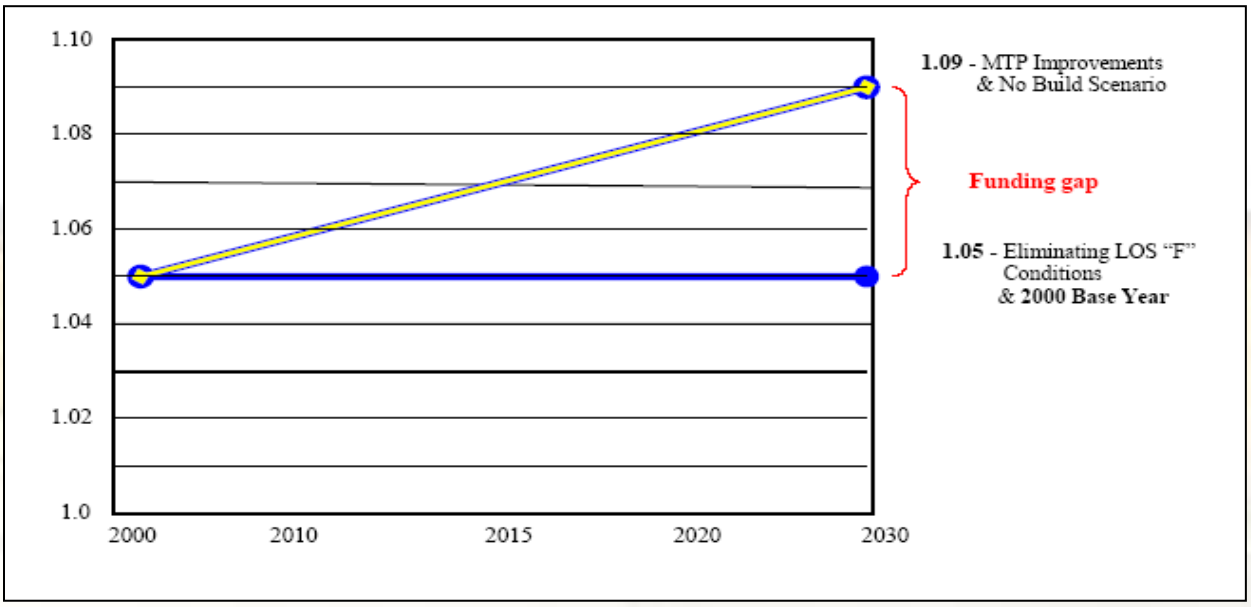
- an existing "baseline" condition;
- a year 2030 no-build condition;
- a scenario which includes the recommendations from the MTP financially-constrained plan; and
- a scenario which eliminates all level-of-service "F" conditions throughout the entire roadway network.

Each of these five scenarios is input directly into the calculation of TCI values and represents the amount of congestion present and can be plotted to reflect the regional trend in congestion reduction based on the amount of funding and improvements included. The graph below reflects how those four TCI data points correspond to one another and reflects the overall trend in levels of congestion (represented by TCI value) versus the timeframe for anticipated improvements.

In the Hidalgo County region, the baseline TCI value for congestion was **1.21** in 2000. Based on the recommendations contained in the $ 1.16 Billion MTP, the TCI value in the year 2035 is expected to be **1.18**. This reflects a leveling off of congestion even after the

financially constrained MTP has been fully implemented, which indicates the need for additional funding to alleviate a greater level of congestion over time. The no-build condition shows a region's TCI value of **1.50** if none of the improvements in the MTP were implemented, representing an unacceptable level of congestion and delay time. With all the projects from the financially constrained plan excluding the Prop 14 funded projects, toll projects and the pass through financing projects, the TCI value in the year 2035 is expected to be **1.22**. This reflects the worsening of congestion from the base year, which indicates the need for additional funding to alleviate a greater level of congestion over time. The TMMP is the tool to identify the needs that exist above and beyond those identified in the region's MTP. By reducing all level of service "F" conditions throughout the region, the corresponding TCI value would be **1.09**. This is the target level of improvements for the Hidalgo County region.

Figure 2.1.3: TMMP – Texas Congestion Index Values for the Hidalgo County MPO



2.1B Findings

The results of this integrated coordinated TMMP process are reflected in the tables and graphs presented below. As reflected in the table, the financially constrained MTP includes **3082** total roadway lane miles for the entire Hidalgo County region. After running the travel demand model and having it identify all level of service "F" facilities, and then allowing the model to add capacity in increments of whole number lanes until that level of

congestion is eliminated, the resulting additional lane miles needed under this needs-based plan are **470** roadway lane miles.

The process used to identify this additional need is based on an all-or-nothing travel demand model run, which has a tendency to make the freeway facilities overly attractive due to faster speeds and adds the majority of trips to these faster facilities. It is anticipated that congestion will ultimately be alleviated through a mixture of modes. This analysis provides a good representation of overall need, but does not clearly identify where that need would be accommodated.

Table 2.1c: Strategies to Reduce Congestion and Improve Urban Mobility (Long Term Needs)

	Base Year	Metropolitan Transportation Plan		Reconstruction cost for roads older than 40 years by 2030		Eliminate Level-of-Service "F"	
	Lane Mileage	2030 Lane Miles	MTP Financially Constrained	Reconstruction lane miles	Reconstruction cost	Additional Lane Miles Needed	To Eliminate LOS "F
Freeway/Tolls	217	385		0	0	27	$89,581,000
Principal Arterials	1885	2697		539	$478,582,000	443	$407,342,000
Interchanges	1	-	-	-	-	5	$450,000,000
TOTALS	2103	3082	*$1,159,300,000	539	$478,582,000	470	$946,923,000

One of the main purposes of developing a TMMP is to identify the magnitude of long-range needs in each TMA, and to quantify the amount of funding needed to reach that target level of congestion. As mentioned in the previous section, the target level for each TMA is to reduce congestion so that all level-of-service "F" facilities are eliminated, thus providing greater mobility, improved air quality, and a more reliable transportation system. The analysis used to identify the additional **470** lane miles should be interpreted as an overall need that should be reached through a combination of freeway, arterial street improvements, bus, freight, and operational system improvements.

2.1C Hidalgo County Corridor Needs

The Hidalgo County region is currently pursuing this wide range of modal improvements to the transportation system and will look for ways to secure the funding necessary to promote these interests even further. Out of the additional 470 lane miles needed, it is not known exactly how many of these will be accommodated through other modes, but it is this region's intention to pursue a truly multi-modal network of transportation alternatives.

Rather than focusing on the total out-year need of 470 additional lane miles, it is more intuitive to discuss the need in terms of person-moving capacity, which translates between the modes more easily and logically.

Roadway expansions alone cannot solve for most of these capacity deficiencies, so an identified solution is to reconstruct existing facilities. The average pavement age in the Hidalgo County region is about 30 years. Most pavement surfaces are designed to last on the average of 25 years. Structure age is also an issue with over- and underpasses. Many of these structures are past their design life and are in need of rehabilitation. These costs are considered to be capital costs, separate from the annual transportation operations and maintenance costs.

The Hidalgo County Region has a significant unmet need which the TMMP process should attempt to identify. Since the solution to this growing traffic problem will need to be addressed through a multitude of techniques involving numerous modes, it is important to identify the anticipated future transportation system that will serve as the starting place. Through the already required process of developing a financially constrained MTP, the initial groundwork for this effort has already been accomplished. The following sections discuss each of the specific modes or operational categories already being planned in this region and provide some idea of the magnitude of the future transportation system which has already been identified, adopted, and embraced.

Transportation System Management and Operations

The Transportation System Management (TSM) approach to congestion mitigation seeks to identify improvements to new and existing facilities of an operational nature. These techniques are designed to improve traffic flow and safety through better management and operation of transportation facilities. Compared to major capacity and infrastructure improvements, TSM-related projects are usually lower in cost and can be implemented or constructed in less time. Some examples of traditional TSM improvements include traffic signal enhancements, removal of freeway and arterial bottlenecks, and Intelligent Transportation System (ITS) deployment.

Improved traffic flow and reduction of delay can have positive air quality benefits as well. Improvements at intersections and in signal timing, which reduce delays at those locations, limit the amount of vehicle emissions. Reducing traffic jams caused by incidents on the

freeways through better traffic management also eliminates the amount of pollutants by reducing the number of idling vehicles.

Along with addressing mobility and air quality goals, elements of TSM address community and quality-of-life goals by supporting sustainable development practices. Access management is one element of sustainable development that is impacted by TSM strategies, such as intersection improvements. Furthermore, bicycle and walking trips can be encouraged by a safer intersection design and traffic signals that accommodate a timing cycle for bicycle and pedestrian movements.

2.2 Fiscal Constraint

The MTP is a comprehensive, multimodal blueprint for transportation systems and services aimed at meeting the mobility needs of the Hidalgo County Metropolitan Area. The plan also serves as a statement of how the region plans to invest in the transportation system over the next 25 years. The MTP, identified as the Hidalgo County Metropolitan Transportation Plan: 2010-2035 update, includes both long and short-range policies, strategies, and projects that lead to the development of an integrated intermodal transportation system that facilitates the efficient movement of people and goods. The MTP is required to be financially-constrained, balanced to anticipate revenue streams over time, and able to identify and analyze the financial resources available to implement its recommendations. The MTP guides the expenditure of more than $ 1 Billion of federal, state and local funds expected to be available for transportation improvements in Hidalgo County through the year 2035.

The CFR Title 23, Article 322 dictates that each region must develop a metropolitan transportation plan under the following guidelines:

- The metropolitan transportation planning process shall address no less than 20 years.
- The transportation plan shall include long-range and short-range strategies and actions to facilitate the safe and efficient movement of people and goods.
- The MPO shall review and update the transportation plan every 5 years.
- The MPO shall consult with State and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation concerning the development of the transportation plan.
- The metropolitan transportation plan should include a safety element that incorporates the priorities, goals, or projects for the MPA contained in the SHSP

as well as emergency relief and disaster preparedness plans, strategies and policies.

- The MPO shall provide citizens and stakeholders with reasonable opportunity to comment on the transportation plan using the existing participation plan.
- The metropolitan transportation plan shall be published and available for public review, including the Internet.
- The metropolitan transportation plan shall at a minimum include:
  - The projected transportation demand of persons and goods in the metropolitan planning area over the period of the transportation plan.
  - Existing and proposed transportation facilities including major roadways, transit, multimodal and intermodal facilities, pedestrian walkways and bicycle facilities, and intermodal connectors.
  - Operational and management strategies to improve the performance of existing transportation facilities.
  - Consideration of the results of the congestion management process.
  - Assessment of capital investment and other strategies to preserve the existing and projected future metropolitan transportation infrastructure and provide for multimodal capacity increases based on regional priorities and needs.
  - Design concept and design scope descriptions of all existing and proposed transportation facilities in sufficient detail to develop cost estimates.
  - A discussion of types of potential environmental mitigation activities and potential areas to carry out these activities.
  - Pedestrian walkway and bicycle transportation facilities.
  - Transportation and transit enhancement activities.
  - A financial plan that demonstrates how the adopted transportation plan can be implemented
    - The financial plan shall contain system-level estimates of costs and revenue sources that are reasonably expected to be available.
    - The MPO, public transportation operators, and State shall cooperatively develop estimates of funds that will be available to support the metropolitan transportation plan implementation.
    - The financial plan shall include any additional financing strategies to fund projects and programs included in the metropolitan transportation plan.

- Starting December 11, 2007, revenue and cost estimates in the metropolitan transportation plan must reflect "year of expenditure dollars" based on reasonable financial principles and information.
- For the outer years of the metropolitan transportation plan, the financial plan may reflect aggregate cost ranges/cost bands, as long as the future funding sources are reasonably expected to be available.
- For illustrative purposes, the financial plan may include additional projects that would be included in the transportation plan if additional financial resources were to become available.

In working closely with the TxDOT District and Administrative offices, staff of the HCMPO was able to prepare a realistic, and most probable financial forecast of financial resources for use in the MTP development. TxDOT, in its original development of the FY2010-2020 Unified Transportation Program (UTP) estimated that there would be approximately $28.18 billion in funding available for programming. However, during the November 2009 TxDOT Commission meeting, the Commission adopted a UTP with a programming forecast of just $23 billion. The reduction of funding to the amount of almost $5 billion is attributed to the reduction in gas tax receipts of almost 1% for 2009. The FY2010-2020 UTP forecast is based upon a ½% increase in gas sales tax receipts in 2010 and 1% for the following years.

Table 2.2a: Unified Transportation Program Funding Levels (2010-2020)

FUNDING CATEGORY	FUNDING DISTRIBUTION
1 - Preventive Maintenance and Rehabilitation	**$10,616,572,362**
2 - Metropolitan Area Corridor Projects	**$2,021,679,257**
3 - Urban Area Corridor Projects	**$401,112,039**
4 – Statewide Connectivity Corridor Projects	**$50,691,000**
5 – Congestion Mitigation and Air Quality Improvement	**$ 1,246,458,775**
6 – Structures Federal Highway Bridge Program (HBP); Federal Railroad Grade Separation Program (RGS)	**$ 2,813,110,000**
7 - Metropolitan Mobility/Rehabilitation	**$ 2,106,353,659**
8 – Safety Federal Highway Safety Improvement Program, Federal Railway-Highway Crossing Program, Safety Bond Program, Federal Safe Routes to School Program, and Federal High Risk Rural Roads	**$ 1,444,275,000**
9 - Transportation Enhancements	**$ 676,428,578**
10 - Supplemental Transportation Projects State Park Roads, Railroad Grade Crossing Replanting, Railroad Signal Maintenance, Landscape Incentive Awards, Green Ribbon Landscape Improvement, Curb Ramp Program, Coordinated Border Infrastructure Program, Comprehensive Development Agreements and Congressional High Priority Projects	**$ 768,901,090**
11 – District Discretionary	**$ 728,040,000**
12 - Strategic Priority	**$ 176,259,440**
TOTAL UTP FUNDING	**$ 23,049,881,200**

The Pharr District offices applied the funding formulas to the approved funding levels and supplied the HCMPO a reasonable financial forecast for use in obtaining a financially constrained MTP. The budget for the HCMPO 2035 MTP is approximately $1.37 billion. The funding breakdown is shown in the following table. It is worth noting that the HCMPO shows no funding for Category 2, Metropolitan Area Corridor Projects, for the first 10 years of the time span of the 2035 MTP, this due to debt payment. This debt payment is needed for reimbursement of funding that the District was able to utilize so that projects such as the US 83 and US 281 corridors could be completed in an earlier time span. In hindsight this was very beneficial to the region since it is unlikely that either of these projects would be constructed in the present economic situation, and that both of these projects had considerable costs savings associated with them by letting them at an earlier time. Staff is confident that the estimates provided are the most accurate reflection of a financially constrained forecast for development of the FY 2035 MTP.

Table 2.2b: MTP Funding Break-down (2010-2035)

Year	Category 1	Category 6	Category 8	Category 9	Category 12	Operational Improvements	Mobility Funds					Total Mobility	Total Funding per year
							Category 2	Category 7	Category 10	Category 11			
2010	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$0	$0	$0	$5,444,301	$1,462,500		$6,906,801	$34,637,264
2011	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$9,000,000	$5,444,301	$1,462,500		$15,906,801	$44,137,264
2012	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$12,308,917	$5,444,301	$1,462,500		$19,215,718	$47,446,181
2013	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$12,308,917	$5,444,301	$1,462,500		$19,215,718	$47,446,181
2014	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$12,308,917	$5,444,301	$1,462,500		$19,215,718	$47,446,181
2015	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$12,308,917	$5,444,301	$1,462,500		$19,215,718	$47,446,181
2016	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$12,308,917	$5,444,301	$1,462,500		$19,215,718	$47,446,181
2017	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$12,308,917	$5,444,301	$1,462,500		$19,215,718	$47,446,181
2018	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$12,308,917	$5,444,301	$1,462,500		$19,215,718	$47,446,181
2019	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$12,308,917	$5,444,301	$1,462,500		$19,215,718	$47,446,181
2020	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$12,308,917	$5,444,301	$1,462,500		$19,215,718	$47,446,181
2021	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500		$28,308,154	$57,793,617
2022	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500		$28,308,154	$57,793,617
2023	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500		$28,308,154	$57,793,617
2024	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500		$28,308,154	$57,793,617
2025	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500		$28,308,154	$57,793,617
2026	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500		$28,308,154	$57,793,617
2027	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500		$28,308,154	$57,793,617
2028	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500		$28,308,154	$57,793,617
2029	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500		$28,308,154	$57,793,617
2030	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500		$28,308,154	$57,793,617
2031	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500		$28,308,154	$57,793,617
2032	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500		$28,308,154	$57,793,617
2033	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500		$28,308,154	$57,793,617
2034	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500		$28,308,154	$57,793,617
2035	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500		$28,308,154	$57,793,617
	$631,253,038	$56,745,000	$22,815,000	$36,504,000	$0	$5,000,000	$128,886,540	$311,914,008	$141,551,826	$38,025,000		$620,377,374	$1,372,694,412

Proposition 12 (General Obligation Bond Projects)

In July 2009, the Texas Legislature authorized TxDOT to go to contract on approximately $2 billion in general obligation bonds for highway improvements. Texas voters approved these Proposition 12 bonds, which are backed by the state's general revenue not by fuel tax revenues, by a 63 percent margin in November 2007.

Project Selection

TxDOT districts and Metropolitan Planning Organizations identified more than $8.9 billion in possible projects. In October 2009, the Texas Transportation Commission was presented with a narrowed list of projects recommended by staff. The Commission approved a final project list at their regular November 19, 2009 meeting in Austin.

The Hidalgo County area received an apportionment of $17,543,295 of the Prop. 12 distributions. The attached listing is reflective of the projects that were selected with the Prop. 12 funding available.

Table 2.2c: Proposition 12 (General Obligation Bond Projects)

PHARR DISTRICT MASTER LETTING PLAN- PROP 12 PROJECTS IN MPOS

USE FOR ADDITIONAL FINANCIAL CONSTRAINT IN TYPE SHOWN

Let Date	MPO	Highway	CSJ	Description	Limits	PROP 12 FUNDS	TYPE
Apr-10	HC	US 281	0220-02-025	Full Depth Repair Both Lanes	FM 491 to Hidalgo C/L	$ 3,200,620	REHAB
Apr-10	HC	US 281 Military	0220-02-026	Rehab Exist Rdwy	FM 1015 to FM 491	$ 2,323,015	REHAB
May-10	HC	US 281 Military	0220-01-028	Rehab Exist Rdwy	0.5 mi West of FM 2557 to FM 907	$ 1,812,803	REHAB
Feb-11	HC	FM 681	0669-01-048	Rehab ROADWAY	1.5 MI N OF FM 2058 TO FM 681/FM490 (W)	$ 1,199,527	REHAB
May-11	HC	US 281 Military	0220-01-029	Rehab Existing Roadway (Super 2)	FM 907 to FM 493	$ 4,791,133	REHAB
May-11	HC	US 281 Military	0220-01-030	Rehab Existing Roadway (Super 2)	FM 493 to FM 88	$ 4,216,197	REHAB
						$ 17,543,295	
Jun-10	HSB	FM 3248	2717-01-017, etc.	Widen to 4 Ln Divided	0.74 Mi N of US 281 to 0.18 Mi W of US 77/83	$ 5,972,537	MOBILITY
Aug-10	B	FM 800 Rdwy	1136-02-025	Grad, Base,Surf & STRS	0.1 mi S of Trimple Lane to FM 3067	$ 6,000,000	REHAB

Program Purpose

To improve the safe movement of motor vehicles at or across the land border between the U.S. and Canada and the land border between the U.S. and Mexico. This program replaces the TEA-21 Coordinated Border Infrastructure discretionary program which ends after 2005.

Table 2.2d: Coordinated Border Infrastructure (CBI) Program Fact Sheet (Statewide)

Year	2005	2006	2007	2008	2009
Authorization	$123M	$145M	$165M	$190M	$210M

Statutory References

SAFETEA-LU Section(s): 1101(a) (11), 1303

Funding/Formula

Funded by contract authority, funds are subject to the overall Federal-aid obligation limitation, not transferable except as permitted for transfer to GSA (see below), and remain available until expended.

Funds are to be apportioned among Border States based on factors related to the movement of people and goods through the land border ports of entry within the boundaries of the State as follows:

- 20% based on number of incoming commercial trucks
- 30% number of incoming personal motor vehicles and buses
- 25% based on weight of incoming cargo by commercial trucks
- 25% based on number of land border ports of entry

For FY 2005, $140 million is provided for the combination of the National Corridor Planning and Development and Coordinated Border Infrastructure discretionary programs under Sections 1118 and 1119 of TEA-21 to be administered under the terms of those sections. [1101(a)(19)]

Eligible Use of Funds

States may use funds in a border region, defined as any portion of a border State within 100 miles of an international land border with Canada or Mexico, for the following types of improvements to facilitate/expedite cross border motor vehicle and cargo movements:

- improvements to existing transportation and supporting infrastructure
- construction of highways and related safety and safety enforcement facilities related to international trade
- operational improvements, including those related to electronic data interchange and use of telecommunications

- modifications to regulatory procedures
- International coordination of transportation planning, programming, and border operation with Canada and Mexico.

Program Features

Projects in Canada or Mexico - a border State may use these funds to construct a project in Canada or Mexico if the project directly and predominantly facilitates cross-border vehicle and cargo movement at an international port of entry in the border region of the State. Canada/Mexico must assure that the project will be constructed to standards equivalent to those in the US, and be maintained and used over the useful life of the facility only for the purpose for which the funds were allocated.

Transfers to General Services Administration (GSA) - if a border State requests, the Secretary approves, and GSA agrees, up to 15% or $5M (whichever is less) of the State's border program funds may be transferred to GSA to carry out 1 or more eligible projects. The State must provide the non-Federal share directly to GSA.

Federal Share

The Federal share is generally 80 percent, subject to the sliding scale adjustment. When the funds are used for Interstate projects to add high occupancy vehicle or auxiliary lanes, but not other lanes, the Federal share may be 90 percent, also subject to the sliding scale adjustment. Certain safety improvements listed in 23 USC 120(c) have a Federal share of 100 percent.

Texas Restrictions

On March 30, 2006, the TxDOT Commission adopted Minute Order 110481, in which the State, in cooperation with MPO's adjusted the CBI program with the following restrictions.

- Districts may use these funds within a 50 mile radius of border crossings for the following type of improvements to facilitate/expedite cross-border motor vehicle and cargo movements.

    - improvements to existing transportation and supporting infrastructure
    - construction of highways and related safety and safety enforcement facilities related to international trade
    - operational improvements, including those related to electronic data interchange and use of telecommunications
    - modifications to regulatory procedures

  - International coordination of transportation planning, programming, and border operation with Canada and Mexico.
- A border district may use these funds to construct a project into Mexico at a border crossing if the project directly and predominantly facilitates cross-border vehicle and cargo movement at an international port of entry in the border region of the State. Mexico must assure that the project will be constructed to standards equivalent to those in the US, and be maintained and used over the useful life of the facility only for the purpose for which the funds were allocated.

Funds are to be apportioned among districts based on factors related to the movement of people and goods through the land border ports of entry within the boundaries of the State as follows:

- 20% based on number of incoming commercial trucks
- 30% number of incoming personal motor vehicles and buses
- 25% based on weight of incoming cargo by commercial trucks
- 25% based on number of land border ports of entry

The HCMPO places all CBI funds into the funding category of the MTP tables. CBI eligible projects are identified on the table for possible development with CBI funds. The HCMPO planning area receives $5.4 million per year for 10 years in CBI funding.

2.2A SAFETEA-LU: Metropolitan Planning Areas of Emphasis

According to the CFR, Title 23, Part 450, Subpart B, Article 306, "the metropolitan transportation planning process shall be continuous, cooperative, and comprehensive, and provide for consideration and implementation of projects, strategies, and services that will address the following planning factors:"

Factor 1. Support the economic vitality of the United States, the States, metropolitan areas, and non-metropolitan areas, especially by enabling global competitiveness, productivity, and efficiency.

Factor 2. Increase the safety of the transportation system for motorized and non-motorized users.

Factor 3. Increase the security of the transportation system for motorized and non-motorized users.

Factor 4. Increase accessibility and mobility of people and freight.

Factor 5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvement and State and local planned growth and economic development patterns.

Factor 6. Enhance the integration and connectivity of the transportation system, across and between modes throughout the State, for people and freight.

Factor 7. Promote efficient system management and operation.

Factor 8. Emphasize the preservation of the existing transportation system

Following are examples of how the HCMPO has addressed each planning factor from SAFETEA-LU:

1. ***"Support the economic vitality of the United States, the States, metropolitan areas, and non-metropolitan areas, specially by enabling global competitiveness, productivity, and efficiency"***

   - The metropolitan transportation planning process has to be continuous, cooperative and comprehensive. Both the TxDOT and Rio Metro are active members at the HCMPO's TAC and the TPC enabling coordination between the HCMPO's planning process, the statewide transportation planning process and the transit transportation planning process increasing the productivity and efficiency of the system. Consultation with other agencies and planning partners, the HCMPO makes the metropolitan transportation planning process productive and efficient.

   - The Public Participation Plan (PPP) involves citizens and interested parties in the transportation planning process starting from the beginning up until the MTP is adopted. Another important aspect of public participation is the implementation of visualization techniques as required by the SAFETEA-LU as a tool to provide citizens with a better understanding of what a future project will look like and the impact it will have in their community.

- A Regional Transit Plan was developed in 2006 by KFH Group to evaluate the connectivity and coordination between public and private transportation providers in the Lower Rio Grande Valley. The study identified several areas of opportunity such as administrative and operational coordination improvement activities to provide a faster and seamless riding experience to the user.

- A multimodal study developed by Wilbur Smith in 2006-2007 evaluated the connectivity between different modes of transportation such as highways, pedestrian and bicycle lanes, public transit routes, and school routes, amongst others making the transportation system more productive and efficient.

- As a response to the governor's request to every TMA in the State, the HCMPO developed a TMMP in 2004 and updated it in 2006 identifying the additional mobility funding required once the MTP list of projects was to be implemented. Since it is well understood that the projects identified in the MTP do not fully address the level of service acceptable for Hidalgo County, the State didn't have a clear picture of the amount of additional funding required for the next 25 years. The 2006 TMMP resulted in additional funding equivalent to $1.4 billion needed for the next 25 years.

- The MTP is the heart of transportation planning for MPO's. It's where, thru a collaborative process, the public, the MPO, and its planning partners get together to prioritize transportation projects for construction, maintenance, rehabilitation, signal or engineering improvements during the next 25 years. The TIP is also an essential part of transportation planning since its where priorities are determined during the next 4 years.

2. ***"Increase the safety of the transportation system for motorized and non-motorized users"***

- One of the criteria both TxDOT and the HCMPO consider when selecting projects for inclusion in the TIP is the safety impact of the project. The MPO will give safety the same priority as cost effectiveness and with equal weight.

- It is important to understand that roads require safety features and that certain elements must be addressed in order to meet the demands and implementation of specified roads and their alternative routes. Along with the responsibility of addressing specific safety needs, comes the need to engineer and ultimately

construct the various arterials, freeways, expressways and collectors in a manner that offers respect and confidence to acclimate the nearby residents, businesses, and various users of the roadways.

- The HCMPO started the Hidalgo County Incident Management Program (IMP) in 2005 to address safety in the region. It has dedicated the last 4 years to processing accident reports from the cities of Hidalgo County for the years 2003, 2004, 2005, 2006, and 2007 in an effort to give insight to each city about the locations where most of their accidents or "hot spots" are taking place. The HCMPO's IMP is based on accurate and timely data provided directly by the each city police department in Hidalgo County. The HCMPO's IMP is a continuous program that enables the study and behavior analysis of existing and future "hot spots". The results of the IMP are incorporated into the HCMPO's website, giving insight to the cities about their accident problem areas. The results of the IMP will become a future element in the project selection criteria utilized to rank projects in the 2010-2035 MTP.

- Because the Rio Grande Valley offers a year round tropical climate, residents enjoy cycling as an outdoor activity and utilize the roadways for cycling purposes, so there is a need for cycling routes construction, improvement, and maintenance. The MPO was awarded honors for its innovation in the regional development of bicycling alternatives to the transportation infrastructure.

3. *"Increase the security of the transportation system for motorized and non-motorized users"*

- The terrorist events of September 11th emphasized that effective coordination and communication among the many different operating agencies in a region is absolutely essential. Such coordination is needed to allow enforcement, security, and safety responses to occur in an expeditious manner, while at the same time permitting the transportation system to handle the overwhelming public response to the incident. The public needs to have clear and concise information about the situation and what actions need to be taken.

- Although the immediate organizational response to security incidents and disasters will be the responsibility of security and public safety agencies, there is an important role that MPOs can play in promoting coordinated planning in

anticipation of unexpected events or natural disasters. The MPO can also provide a centralized location of information on transportation system conditions as well as local and national responses that might be useful in an emergency. Hurricane and disaster evacuation plans are a good starting point and may be sufficient for the types of incidents anticipated.

- Most studies of sudden disruptions to the transportation network, either from natural or man-made causes, have concluded that the surroundings of a metropolitan area's transportation system provides a rerouting capability that allows the flow of people and vehicles around disrupted network links.

- The most effective response strategy is for State, local, and national authorities to develop flexible strategies that can be adjusted quickly and appropriately to the type of incident that actually occurs. This type of strategy requires management coordination, compatible communication systems, and real time information feedback to decision makers that permits near immediate changes in the strategy when required. This approach also requires mechanisms for disseminating information to the general public that provides the most up-to-date guidance on the best transportation options for avoiding bottlenecks in the transportation system.

- Up to this point, it was not very clear what the MPOs responsibility was regarding security planning. But now it is very clear that even the minor security planning efforts can have a great impact in the mobility and security of the area. When we talk about security or disaster planning, it is important to remember that the role of an MPO is optimized when it becomes a forum for all agencies to coordinate on what the future strategies as a result of a terrorist attack or a natural disaster should be. Simple actions such as identifying the most vulnerable corridors in an imminent hurricane, or finding alternative routes to resume mobility in the region after an incident are critical steps toward achieving normalcy in the region.

- Compiling and analyzing patterns of behavior by the general public and by first response agencies will create an invaluable blue print for future mitigation strategies that could be used in a future security or disaster incident, giving peace of mind to the public.

- The HCMPO is excited about becoming involved in the security of Hidalgo County. Even though the HCMPO has not initiated any strategies involving security in the transportation planning process in the past, it is in the future. The HCMPO will make a great effort to initiate this new endeavor and to create a solid milestone between all agencies involved in the process to establish clear and effective security and disaster planning strategies that will benefit all in Hidalgo County.

4. "Increase accessibility and mobility of people and freight"

- The MTP includes both a seamless transit system as well as freight elements. With the growth in technology, a booming economy, and the increased level of tourism, greater emphasis has been placed on the various modes of transportation throughout the Valley, including Mexico. This is particularly noticeable with the transportation changes and emphasis placed on international border crossings. International bridges have experienced such a surge of both vehicular and pedestrian traffic crossings, that now the need for expansion and new construction has dominated the engineering, design, and construction phases of transportation to accommodate future needs and the continued growth. Because Mexico is a key element of the North American Free Trade Agreement (NAFTA), its need to transport essential goods to various parts of the country, including Canada, called for a more efficient transportation infrastructure.

- Of the methods used to get products to the market, we can mention trucks, air, and rail cars. Trucks can cause heavy roadway congestion if not directed thru the appropriate route. Although their use is limited, rail cars are not seen as a contributor to congestion, and as a result have not had a big emphasis placed on them. Finally, air transportation is a means of transporting goods and passengers.

- NAFTA has given Mexico an economic boost after decades of recession. As such, Mexico has become a critical pipeline for goods, and in return the South Texas economy has thrived and greatly benefited from the generosity that the transportation of goods has provided. For the most part, jobs have been created, new roadways have been constructed, and existing infrastructures have been repaired as needed.

- The positive outlook on the construction side of transportation is that the roads have been built around the daily grind of commuting to work, school, medical facilities, shopping centers, and the many other daily driving demands.

- The increase in freight traffic has required the roads to become modernized in order to accommodate the large traffic volumes and reduce traffic congestion. The transportation infrastructure put in place has benefited not only the commercial entities, but the private sector as well. Throughout the country, roads are engineered and constructed in a manner that allows for the co-existence of private and commercial traffic.

- Vehicular traffic is not the only method of commuting in and out of the valley. As a matter of fact, McAllen is home to one of the valley's three major airports, McAllen Miller International Airport, which is located less than six miles north of the US-Mexico border. Although the airport no longer offers commercial international flights, it retains its designation as it accommodates a large volume of private airplanes from which, the majority, fly in and out of Mexico. Currently, the airport is served by American Airlines, which provides 3 domestic flights daily, and Continental Airlines, which provides 8 domestic flights daily.

- Due to the importance of public transportation in underserved areas, congress passed new transit programs such as Job Access Reverse Commute (JARC) and New Freedom benefiting the low income, and disability populations.

- Special studies such as multimodal, regional transit, hazmat, congestion management, incident management, and the TMMP, help the HCMPO find areas of opportunity to increase the accessibility and mobility of people and freight by evaluating the connectivity between the transit system and all other modes of transportation, such as bicycle and pedestrian lanes as alternate methods of transportation, as well as finding population areas that are underserved, evaluating the quality of the pavement, and analyzing the congestion on the roadway system to increase the mobility of people and freight.

- The MTP compiles information that is required to identify and prioritize projects that will aid in increasing the accessibility and mobility of people and freight by analyzing transit needs and service areas, as well as evaluating the quality and capacity of the roadway network.

- Another important aspect of the future of transportation and mobility is the preservation of Right of Way via the Thoroughfare plan which secures the increase in accessibility and mobility required for a future with higher and more complex commercial and personal transportation needs.

5. ***"Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns"***

- The HCMPO has developed a potential project environmental impact analysis on environmentally sensitive areas for the projects included in the FY 2008-2011 TIP to make sure that these projects don't impact federal lands, historical markers, or natural preserves.

- Since environmental agencies are part of the transportation planning process they assist in the protection of the environment by sharing information on sensitive areas and mitigation techniques.

- Another important factor in improving quality of life, protecting the environment, promoting energy conservation, and achieving planned growth in a metropolitan area, is the integration of land use into the transportation planning process and this is where scenario planning becomes a key. During FY2009, the HCMPO entered into contract with Kimley-Horn Associates to develop scenario planning tools to be utilized in the 2010-2035 MTP which will greatly involve public participation to increase the understanding of the negative effects of sprawl in the communities. If the community could adopt planned growth, it will have a positive effect on the environment, energy conservation, and the quality of life of residents in the community.

- The metropolitan transportation planning process promotes energy conservation and improves the quality of life thru the effort by all stakeholders and planning partners on giving priority to the most critical projects in the community.

- The CMP aids in promoting energy conservation, improving the quality of life, and encouraging economic growth by reducing idle vehicles and emissions thru its improvement recommendations.

- The ISTEA had a very popular program called Enhancement Program, which enabled the Texas Department of Transportation to enhance the environment by restoring historic transportation structures. This program was continued in the TEA-21 as well as in SAFETEA-LU.

- Across South Texas, the increase in traffic and congestion levels has greatly decreased due to the various roadway improvements and construction of new roads. For commercial traffic that used to move dangerously throughout US Highway 83, the roadways have been improved and updated to include several new lanes and exits for greater convenience.

- A network of bicycle lanes, like the bicycle plan adopted by the HCMPO in 1996 and in which great emphasis is still placed, also enhances the environment, promotes energy conservation, and improves the quality of life by getting motorists off the roadway system, also offering a healthier means of mobility other than the highway system.

- An increase in the use of the transit system can also mean a reduction in pollutants, enhancing the environment and encouraging energy conservation by reducing the amount of automobiles burning fuel on the roadway system. The HCMPO and its planning partners are placing great emphasis in the use of the transit system by improving coordination between transit providers in the valley, standardizing operations and offering the final user a continuous and seamless travel experience. The Regional Transit Plan developed by KFH in 2006 revealed great discrepancy in operating practices and procedures amongst transit providers in Hidalgo and Cameron Counties. It identified a great opportunity for transit providers to coordinate their operating practices and to standardize operations in the Lower Rio Grande Valley. So far great progress has been made towards achieving this goal.

6. ***"Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight"***

- Being that the metropolitan transportation planning process is continuous, cooperative, and comprehensive; and since it requires the coordination with the transit transportation plan, it promotes the integration and connectivity of the transportation system across and between modes for people and freight.

- Transportation studies such as a multimodal study helps promote the integration and connectivity of the transportation system by evaluating and improving the connectivity between different modes of transportation such as the transit system, roadway system, and bicycle and pedestrian lanes, resulting in an increased use of mass transit reducing vehicles on the road, reducing congestion, and increasing the mobility of people and freight.

7. "Promote efficient system management and operation"

- The development of a Unified Planning Work Program (UPWP) in coordination with the TxDOT, the public, and the HCMPO's planning partners promotes efficient system management and operation by setting clear goals for the present and the future of the MPA, evaluating the completion of previous goals, determining how efficient the program is, and determining which areas of the program need improvement. A metropolitan planning agreement sets clear goals and responsibilities for all the entities involved in the planning process making the transportation system management and operation more efficient.

- The transit system also aids in making the transportation system's operation and management more efficient by increasing the use of public transit, this means less cars on the roadways, increasing mobility within the system and reducing pollution.

- The thoroughfare plan also aids in improving the management and operation of the transportation system by preserving future Right of Way in preparation for a growth in commerce, traffic, and population.

- The CMP study provides exact figures of the traffic activity in the roadways, this study pinpoints problem areas where congestion is being generated, it also provides suggestions on how to minimize this congestion and improve travel times, increasing the preservation of the existing transportation system. Another outcome of the CMP study has been the implementation of Intelligent Transportation Systems (ITS) to reduce travel times in corridors. Many times, as with 10th street in McAllen, infrastructure growth is not a possibility due to Right of Way limitations, and in these cases, synchronization of traffic lights proves to be a great tool in reducing travel times. Even though the implementation of ITS

is not as attractive as new infrastructure, the HCMPO is working very hard in making ITS more popular in the community.

8. "Emphasize the preservation of the existing transportation system".

- As part of responsible transportation funding, the preservation and rehabilitation of the existing transportation system is a priority. The preservation of the roadways that took so much effort and funding to built must be protected as part of an efficient mobility system. As it is understood that capital investment for infrastructure is important, it is not always the answer, sometimes mobility improvements can be addressed by preserving and maintaining the existing system. This is where it is critical to understand how old the transportation system is. A major tool in achieving this objective is to implement a Pavement Management System (PMS) to determine how old roadways are and when they will require rehabilitation and maintenance. The Pavement Roughness Index is the variable that identifies the age and condition of the roadways. The HCMPO has been performing a Pavement Roughness Index as part of the Congestion Data Collection study for several years now.

- The HCMPO's bicycle plan implemented in 1996 aids in the preservation of the existing roadway system by incorporating more bicycle lanes, providing improved bicycle system connectivity, and offering users with an alternative to traveling on the roadway system.

- Right of Way preservation via the Thoroughfare plan also preserves the existing roadway system by securing Right of Way for the expected growth in traffic, commerce, and population.

2.2B Public Involvement in the Transportation Plan Update

Public involvement and input is essential in the planning process. The intended outcome of the public involvement process is that better decisions will be made and that those decisions will reflect the community's mobility and accessibility needs.

The HCMPO staff has satisfied all applicable SAFETEA-LU regulations in the preparation of this plan update and compliance has ensured adequate public notice of the planning input to the plan. In compliance with federal regulations for publishing the 2010-2035 MTP,

citizens were given an opportunity to review and comment on the content of the MTP. The Public Involvement process provides a structured, ongoing process for public and private participation. Public involvement efforts included conducting meetings in different cities within the region, holding an MTP Open House at the HCMPO office, posted progress on HCMPO website, met with the Citizens Advisory Committee and distributed notice of all upcoming meetings in various locations in local buses and posting flyers on libraries, Chambers of Commerce and City Halls. Citizens were given opportunities to comment on the MTP in different ways, including speaking at public meetings and completing public opinion surveys. The HCMPO participated at a Night Out organized by the City of Edinburg and participated at a Health Fair organized by the Weslaco ISD in order to take the MTP information to the citizens.

Public Meetings for MTP Update:

September 24, 2009	6:00pm	Edinburg City Hall
October 1, 2009	6:00pm	Mission City Hall
October 8, 2009	6:00pm	McAllen City Hall
October 12-16, 2009	1:30pm	HCMPO Conference Room
November 30, 2009	8:00am	HCMPO Conference Room
December 3, 2009	5:00pm	La Joya City Hall
December 4, 2009	8:00am	HCMPO Conference Room
December 4, 2009	9:00am	PSJA ISD
December 8, 2009	5:00pm	Pharr City Hall

2.2C Multi-Modalism in the Plan Update

Transportation planning entails the efficient and effective movement of people and goods. Multi-modalism can consider the movement of goods between modes, as in between ships and trains and trucks. In the context of multi-modalism for Hidalgo County, the modes under consideration are transit riders, bicyclists and pedestrians.

The development of the multimodal plan began with an assessment of the existing conditions for mode users and the facilities and programs for expansion and promotion of the uses of each of the modes of transportation. Assessment of the modes as an inter-related network of facilities and services highlighted the needs for complementary accommodations and facilities to expand the utility of the individual modes.

The growing awareness and momentum toward improving connectivity throughout the metropolitan area has been noticeable, and there is a great need to provide connectivity between Hidalgo and Cameron County metropolitan areas as well. Public officials are responding to the need to improve pedestrian facilities to accommodate bicyclist and pedestrian mobility.

The Multi-modal Study completed in August, 2007 by Wilbur Smith and Associates proposed an expansion of sidewalks in areas that are fast becoming urbanized, as well as promoting safe routes to school programs around Hidalgo County. An extensive network of on-street and off-street facilities to accommodate and encourage bicycling in the area was seen as necessary to implement a logical plan that improves the quality of life and meets the necessary needs of the community. The goal is to develop another Multi-Modal Plan for the urbanized area of Hidalgo County by using the 1996 Bicycle Plan as a starting point as well as the Multi-Modal Plan in the 2005-2030 MTP which was put together by TAC, and furthermore, the recommendations that were developed by the Multi-Modal Study done by Wilbur Smith and Associates in 2007.

Connectivity for transit users is also becoming a growing importance as gas prices increase and people opt to use transit services more frequently. Intermodal sites, or terminals, where passengers are given the ability to change modes or use other service providers around the region are becoming increasingly needed. Some examples of terminals within the Hidalgo County MPO boundary are the Intermodal Bus facility in downtown McAllen and the Miller International Airport.

In order to have a true multi-modal plan for Hidalgo County, it is necessary for regional and local guidelines to be put in place as the area is developing. Provisions for bicycle and pedestrian facilities and standards for their design will help to plan, build and maintain a community that is economically viable, environmentally friendly, and beneficial to citizens.

Several needs and assessments have been considered in developing a true multi-modal community for Hidalgo County. The Plan seeks to incorporate as many options for citizens as possible because it is imperative to have a complete and accessible system for pedestrians and bicyclists. There is an extensive need to connect existing pedestrian facilities into an integrated transportation system: linking neighborhoods with activity centers and linking neighborhoods and activity centers with transportation modes. Condition of existing facilities must also be considered, as navigability and safety are jeopardized on a facility with rough or broken surface. The greatest needs are safety, connectivity, and access to transit stops. In order to enhance pedestrian mobility for commuting, recreation and other travel purposes, strategies have been developed:

- Construct sidewalks along collectors and higher-classified roadways to conform to ADA requirements.
- Encourage eligible sidewalk projects to be submitted by the public, local governments, transit agencies, schools, or other entities.
- Fund projects on the basis of pedestrian counts, safety, the presence of transit stops, or high traffic volumes on the street.
- Encourage private sector funding and participation.
- Include improvements such as street lighting, landscaping, crosswalks and removal of obstacles within existing sidewalks, where possible.

Non-Motorized Master Bicycle Plan

Bicycling is a cost effective, energy efficient, clean, and healthy way to travel. Bicycling destinations for child and basic riders are similar to those of pedestrians and include nearby commercial areas, parks, schools, libraries, recreation centers, and other residential areas. With the growing concerns of congestion, air quality and the public interest in promoting alternative transportation modes, the adoption of policies that encourage alternate transportation modes will aid in reducing congestion and air pollution. Bicyclists can travel much further than nearby areas within a mile distance. On a 20 to 30 minute journey at a reasonable pace, a bicyclist can cover 3 to 5 miles or more. On longer distances, a bicyclist is looking for long, continuous routes that they find available on suburban and rural roadways preferably with shoulders for their destinations could be like their work, shopping, or social events. The principle of an efficient travel network is to develop a system of complementary transportation modes that support the safe and viable movement of people, goods and services. The Hidalgo County MPO is working toward a Master Plan, which will be the first step that supports and encourages transportation

options, which emphasize convenience, safety, environmental quality and efficiency. The focus is to expand the overall capacity of the movement of people by including bicycling as an alternate transportation mode in the design of the city's new infrastructure, and retrofitting the existing network.

As a wide range community, environmental and infrastructure changes is necessary before this vision can become a reality. Many of these changes will be identified in the development of the Master Plan. First, the plan has identified existing facilities within the metropolitan study area. Second, the plan will identify how future transportation investments in the metropolitan study area can include appropriate facilities to promote bicycling and the safety of bicyclists. Third, the plan will identify how the existing infrastructure can be modified to improve opportunities for bicycling and make cycling safer.

While accomplishing the three steps, the Hidalgo County MPO has to take into consideration the following:

- To promote planning, designation and construction of bicycle trails and bicycle lanes that will greatly enhance bicycling in the area;
- To increase safety for bicyclists through implementation of a carefully designated system of trails and lanes, and through programs designed to educate and inform the pedestrian, bicyclist, and motorist;
- To coordinate Metropolitan bicycle trails and lane connections between communities in the county;
- To provide paved shoulders or bicycle lanes on new or expanded roads designated as bicycle corridors to enhance the use of the bicycle as an effective alternative mode of transportation;
- To try to eliminate parking on shoulders that could be used as bicycle lanes throughout the different communities on designated bicycle corridors;
- Where there is only on shoulder on a roadway designated as a bicycle corridor, to try to replace it with a bicycle lane on each side of the road.

The Multi Modal Plan identifies an appropriate leadership role for local government agencies in implementing the plan that the Hidalgo County MPO staff and TAC members worked on together. This will include recommendations for assisting local agencies, neighborhood groups and user groups in developing future neighborhood and corridor plans for not only bicycling but for sidewalks as well.

Pedestrians are people of varying abilities and purposes; they range from very young to quite old, may walk fast or even run or be very slow. All travelers are pedestrians at some point in their journey whether they make the entire trip on foot, walk to catch the bus, or walk from their car to their destination building. Many individuals choose to walk to their destinations for many reasons whether it is health, exercise, enjoyment, or sense of ecologic responsibility. Walking is a primary mode of transportation for many persons in Hidalgo County, by necessity. Pedestrian travel is the most basic form of transportation even though it has diminished as a preferred way to get from one place to another over the past century (as other modes of travel have emerged). Roadway transportation networks and the resulting land use development have impacted pedestrian travel. Typically, access to employment, goods, services, and recreational activities are more convenient using automobiles. Regardless of the selected method of travel (car, bus, rail), we must rely on pedestrian mobility for at least some part of each trip. Pedestrian facilities must be an integral part of the transportation system, as they are necessary to safely and efficiently accommodate pedestrian mobility for necessary trips and provide access to other modes of travel.

The HCMPO approves the use of federal and state transportation funds and currently operates under the SAFETEA-LU. SAFETEA-LU continues a strong fundamental core formula program emphasis coupled with targeted investment. For example, it encompasses programs that target specific areas of concern, such as pedestrians, including children walking to school and *Environmental Stewardship,* in which SAFETEA-LU retains and increases funding for environmental programs of TEA-21, and adds new programs focused on the environment, including a pilot program for non motorized transportation and *Safe Routes to School*.

Safe Routes to School Program

The Safe Routes to Schools (SRTS) Program is a Federal-Aid program of the U.S. Department of Transportation's FHWA. The Program was created by Section 1404 of the SAFETEA-LU. The SRTS Program is funded at $612 million over five Federal fiscal years (FY 2005-2009) and is to be administered by State Departments of Transportation.

The Program provides funds to the States to substantially improve the ability of primary and middle school students to walk and bicycle to school safely. The purposes of the program are:

1. To enable and encourage children, including those with disabilities, to walk and bicycle to school
2. To make bicycling and walking to school a safer and more appealing transportation alternative, thereby encouraging a healthy and active lifestyle from an early age; and
3. To facilitate the planning, development, and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity (approximately 2 miles) of primary and middle schools (Grades K-8).

Each State administers its own program and develops its own procedures to solicit and select projects for funding. The program establishes two distinct types of funding opportunities: infrastructure projects (engineering improvements) and non-infrastructure related activities (such as education, enforcement and encouragement programs).

At its heart, the SRTS Program empowers communities to make walking and bicycling to school a safe and routine activity once again. The Program makes funding available for a wide variety of programs and projects, from building safer street crossings to establishing programs that encourage children and their parents to walk and bicycle safely to school. According to the FHWA Safety Program, fewer than 15% of all school trips are made by walking or bicycling, one-quarter are made on a school bus, and over half of all children arrive at school in private automobiles. This decline in walking and bicycling has had an adverse effect on traffic congestion and air quality around schools, as well as pedestrian and bicycle safety.

Safety issues are a big concern for parents, who consistently cite traffic danger as a reason why their children are unable to bicycle or walk to school. Each year pedestrian fatalities comprise about 11% of all traffic fatalities and there are approximately 4,600 pedestrian deaths according to the FHWA Safety Program. Another 70,000 pedestrians are injured in roadway crashes annually. Safety is important for all roadway users, and the FHWA's Office of Safety has established a goal of reducing pedestrian fatalities and injuries by 10% by the year 2011. Pedestrian safety improvements depend on an integrated approach that involves the 4 E's: Engineering, Enforcement, Education and Emergency Services. The FHWA's Office of Safety develops projects, programs and materials for use in reducing pedestrian and bicyclist fatalities.

Transportation Enhancement Program

TxDOT administers the federally funded Transportation Enhancement Program which provides opportunities for non-traditional transportation related activities. Projects should go above and beyond standard transportation activities and be integrated into the surrounding environment in a sensitive and creative manner that contributes to the livelihood of the communities, promotes the quality of our environment, and enhances the aesthetics of our roadways. Projects undertaken with enhancement funds are eligible for reimbursement of up to 80% of allowable costs.

To be eligible for consideration, all projects must demonstrate a relationship to the surface transportation system and incorporate at least one of the following 12 categories:

- Pedestrians and bicycles facilities
- Safety and education activities for pedestrians and bicyclists
- Acquisition of scenic easements and scenic and historic properties
- Landscaping and other scenic beautification
- Historic preservation
- Rehabilitation and operation of historic transportation building, structures, or facilities
- Preservation of abandoned railway corridors
- Control and removal of outdoor advertising
- Archaeological planning and research
- Environmental mitigation to address water pollution due to highway runoff or reduce vehicle-cause wildlife mortality while maintaining habitat connectivity
- Establishment of transportation museums

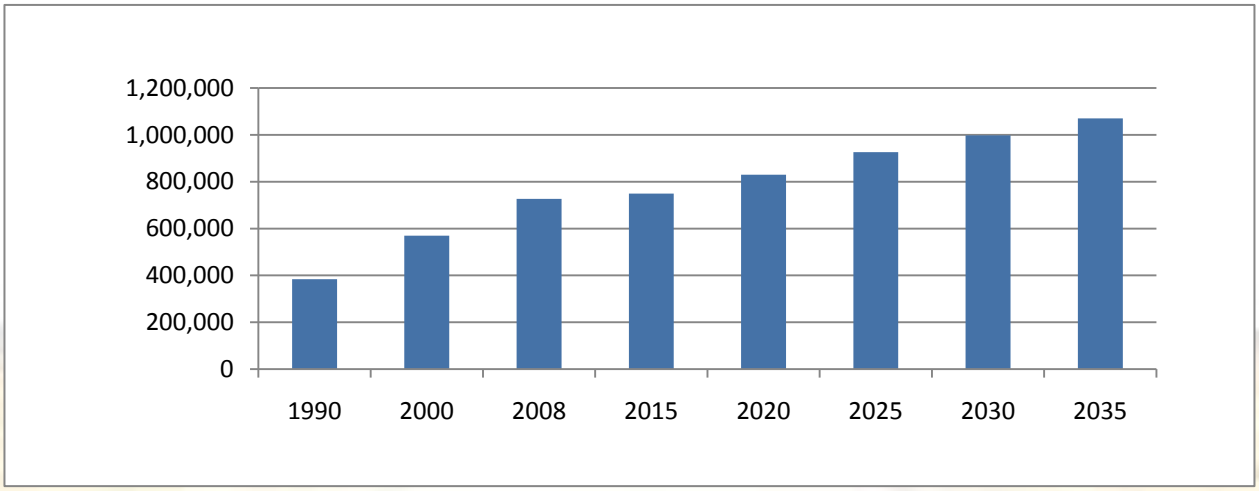
2.3 Demographics

Historical Growth Trends

Historical population figures for the past few decades have shown a tremendous growth in the Rio Grande Valley according to the University of Texas (Pan American). Population growth is the change in population over time, and can be quantified as the change in the number of individuals in a population using "per unit time" for measurement. Demographically speaking population growth rate is the fractional rate at which the number of individuals in a population increases. The Hidalgo County area has grown dramatically since the 1980's and demographic projections indicate that it is right on tract

in reaching a total of one (1) million + residents by 2035. This dramatic growth of the region will have significant accessibility, mobility, and economic implications. Historically all of the major metropolitan areas across the state have experienced consistent growth trends without adequate funding needed to increase the capacity of the transportation system. By the year 2035, Hidalgo County will be the 5th largest metropolitan area in Texas. Hidalgo County today is the 7th largest county in the state with a growth rate more than twice that of the state of the Texas. This county today is larger than 3 individual states in the Union. McAllen, Texas a city within Hidalgo County is a major economic and social force and represents the 6th largest metropolitan area in the wonderful state of Texas.

Figure 2.3.1: Projected population growth for Hidalgo County



Population growth in any region is determined by two factors: the difference between births and deaths, and the difference between people moving into the region and out.

Population density in the Rio Grande Valley varies greatly from South to North. In Hidalgo County, most of the population is concentrated on the south side of the county in towns along Hwy 83, with a population density of 562.4 persons per square mile.

Two of the larger cities within Hidalgo County; McAllen and Donna when compared reflex an interesting growth rate in the first half of the 20th century. Donna explodes with a tremendous influx of population at about two to 1 ratio for that of McAllen. This location was an agriculturally based region. In the second half McAllen grew at 9 times the rate of Donna. The growth of McAllen continues to be fueled by the development and increased retailing activities while Donna has maintained its economic activities within agriculture.

This region has seen a decline in agricultural related jobs and has had an increase in retail, factory, industrial, and human service jobs. Due to this factor the economic center shifted from Donna to McAllen in mid century and up to present. Table 2.3.1 shows historical population data for two of the oldest cities in our Urbanized Area Boundary (UAB) of Hidalgo County, McAllen and Donna.

Table 2.3a: Donna and McAllen Population

Year	McAllen	Donna
1900	N/A	N/A
1910	15	1548
1920	5331	10348
1930	9074	12638
1940	11877	13748
1950	20067	14857
1960	32728	14736
1970	37636	14678
1980	67042	14538
1990	84021	13770
2000	106414	14768
2008	129776	17094

Figure 2.3.2: Population Growth for Donna and McAllen

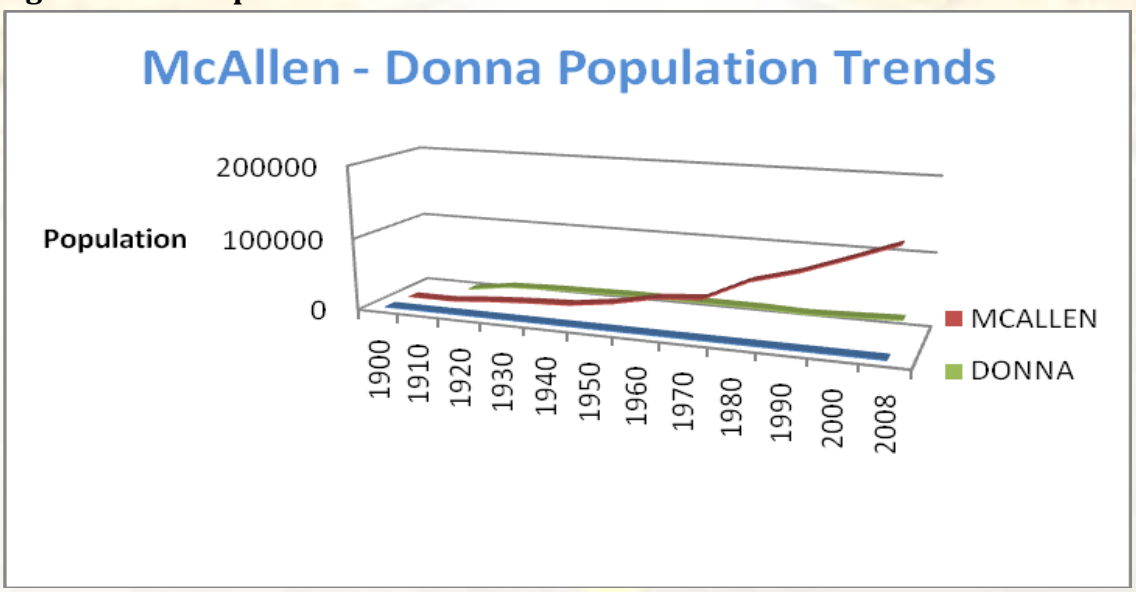


Figure 2.3.2 above compares the historical growth population in Hidalgo County to the National and State average. Even with a moderate sustained growth in 1960 and 1970, trends show that Hidalgo County has continued to grow at a greater pace than national and state levels.

Figure 2.3.3: Population Growth Comparisons: USA vs. Texas vs. Hidalgo County

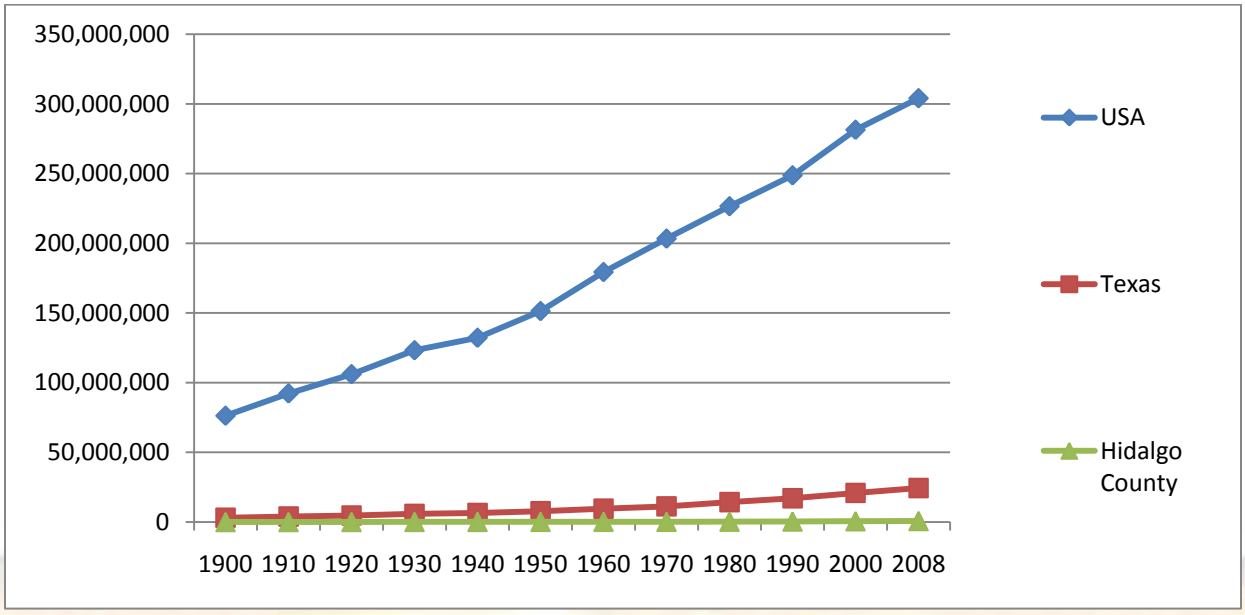


Table 2.3b: Population figures per City within the Hidalgo County MPO Boundaries

	1990	2000	2001	2002	2003	2004	2005	2006	2007	2008
Hidalgo County	**383,545**	**569,463**	**591,578**	**613,400**	**635,533**	**657,394**	**678,652**	**700,634**	**710,514**	**726,604**
Alamo City	8,210	14,760	15,227	15,501	15,764	15,908	15,976	16,287	16,476	16608
Alton City	3,069	4,384	5,524	5,742	6,352	6,786	7,057	7,428	10,542	11523
Donna City	12,652	14,768	15,271	15,425	15,535	15,594	15,846	16,449	16,771	17094
Edcouch City	2,878	3,342	3,675	3,909	4,181	4,440	4,426	4,414	4,368	4613
Edinburg City	29,885	48,465	50,607	52,557	55,189	58,393	62,735	66,672	68,724	71520
Elsa City	5,242	5,549	5,798	5,968	6,166	6,359	6,458	6,608	6,635	6624
Granjeno City	0	313	310	309	308	307	303	301	302	304
Hidalgo City	3,292	7,322	8,133	8,859	9,403	10,058	10,889	11,357	11,623	11984
La Joya City	2,604	3,303	3,849	4,125	4,238	4,347	4,486	4,625	4,724	4795
La Villa City	1,388	1,305	1,362	1,398	1,439	1,447	1,455	1,458	1,439	1434
McAllen City	84,021	106,414	109,207	113,622	116,559	120,552	123,622	126,411	127,245	129776
Mercedes City	12,694	13,649	13,798	13,988	14,088	14,146	14,185	14,734	14,943	15131
Mission City	28,653	45,408	48,311	51,367	54,703	57,737	60,146	63,272	65,310	67119
Palmhurst City	326	4,872	4,906	4,946	4,983	5,009	4,991	5,032	4,972	4988
Palmview City	1,818	4,107	4,181	4,279	4,342	4,394	4,421	4,439	5,498	5502
Peñitas City	1,077	1,167	1,164	1,173	1,181	1,187	1,182	1,185	1,179	1181
Pharr City	32,921	46,660	49,192	51,308	54,583	56,745	58,986	61,360	63,681	65258
Progreso City	1,651	4,851	4,949	5,042	5,049	5,041	5,082	5,309	5,381	5511
Progreso Lakes City	154	234	234	242	245	247	247	256	259	266
San Juan City	10815	26229	27410	28122	28900	29702	30773	32319	33,186	33970
Sullivan City	2,371	3,998	4,060	4,128	4,209	4,285	4,346	4,407	4,390	4435
Weslaco City	21,877	26,935	28,833	29,595	30,507	31,092	31,442	32,092	32,497	33354

Population and Income

Table 2.3b above and Figure 2.3.4 below shows the majority of the population living in the unincorporated urbanized area and McAllen city limits. From 1990 to 2002 the population trend shows movement into the unincorporated urbanized area. By 2003 the majority of the population has concentrated into this area. After 2003 and thru 2008 Hidalgo county population shifts north of the Expressway 83 corridors. Mission, Alton, McAllen, Edinburg, and Weslaco have grown so much that these city's boundaries have started to overlap. Migration from Mexico can be considered as one of the reasons for this shift. The change in the percentage of rural area is not precise since the definition of a rural area has been changed by the US Census Department from 1990 to 2008.

Figure 2.3.4: Unincorporated Urbanized Area of Hidalgo County with City Limits

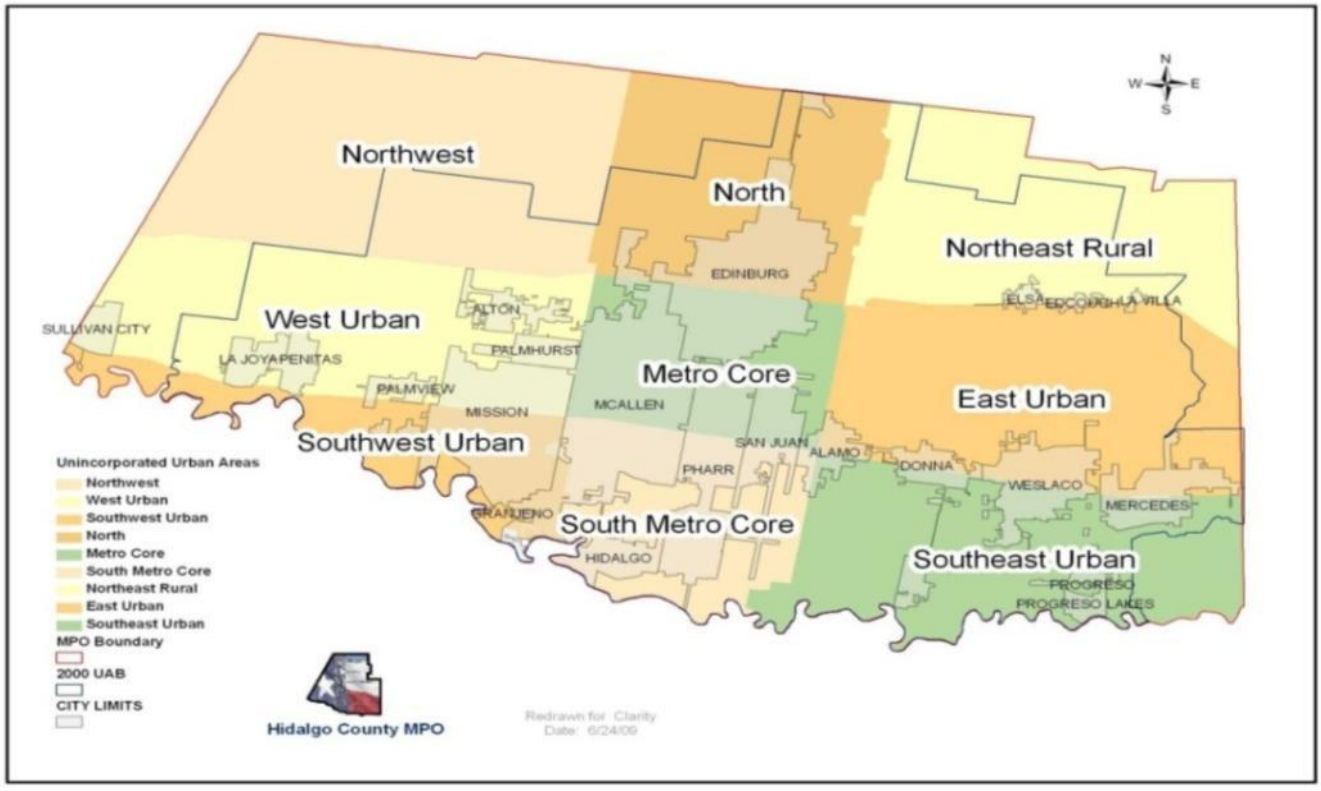
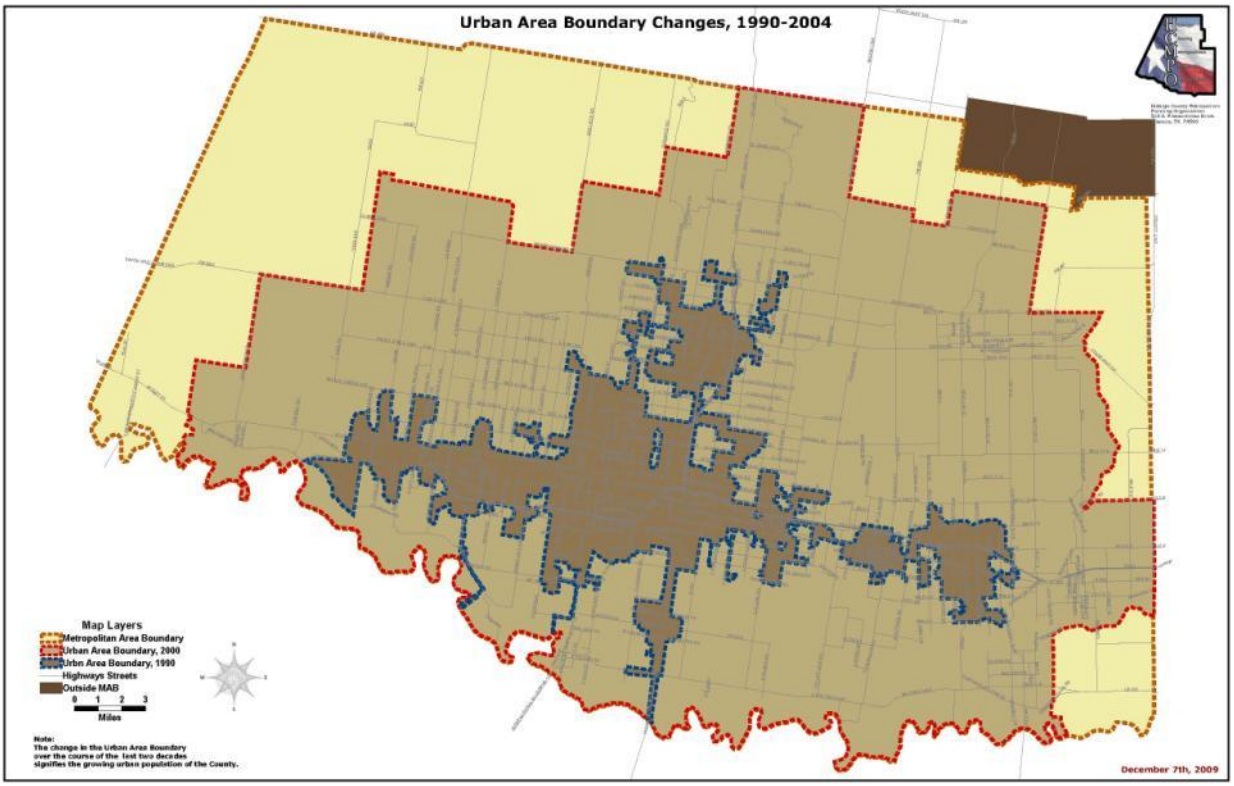


Figure 2.3.4 above illustrates how in 2004 the population density is moving towards the Northeast part of Hidalgo County. The map below also shows how the urbanized area has increased from 1990 to 2000, and how 4 years later the population density has surpassed the metropolitan area boundary.

Figure 2.3.4: Urbanized and Rural Areas of Hidalgo County



The Census for 2000 also provided information regarding average income figures. Table 2.3c in the next page shows median household income in 1999 for the different communities within the Hidalgo County MPO and compares them to the national average. The cities of Granjeno, Palmhurst, and Progresso Lakes came into existence in 1995 and may be a reason for the low percentages compared to the other communities in Hidalgo County. Since future incorporations or annexations of existing cities will occur, the unincorporated urbanized population share should decrease even though it is the fastest growing section of Hidalgo County.

Table 2.3c: Median Household Income Estimates for 2008 (U.S. Census)

Area	Income/ HH
National Average	$52,175
Texas Average	$49,078
Hidalgo County Overall	$30,518
Alamo	$23,938
Alton	$22,097
Donna	$22,800
Edcouch	$18,618
Edinburg	$33,570
Elsa	$19,232
Granjeno	$19,423
Hidalgo	$19,469
La Joya	$22,820
La Villa	$18,333
McAllen	$38,253
Mercedes	$23,064
Mission	$39,979
Palmhurst	$28,847
Palmview	$27,000
Penitas	$26,071
Pharr	$27,721
Progreso	$18,184
Progreso Lakes	$68,125
San Juan	$31,649
Sullivan City	$17,743
Weslaco	$36,341
Urbanized Area	$52,175
Rural Area	$26,692

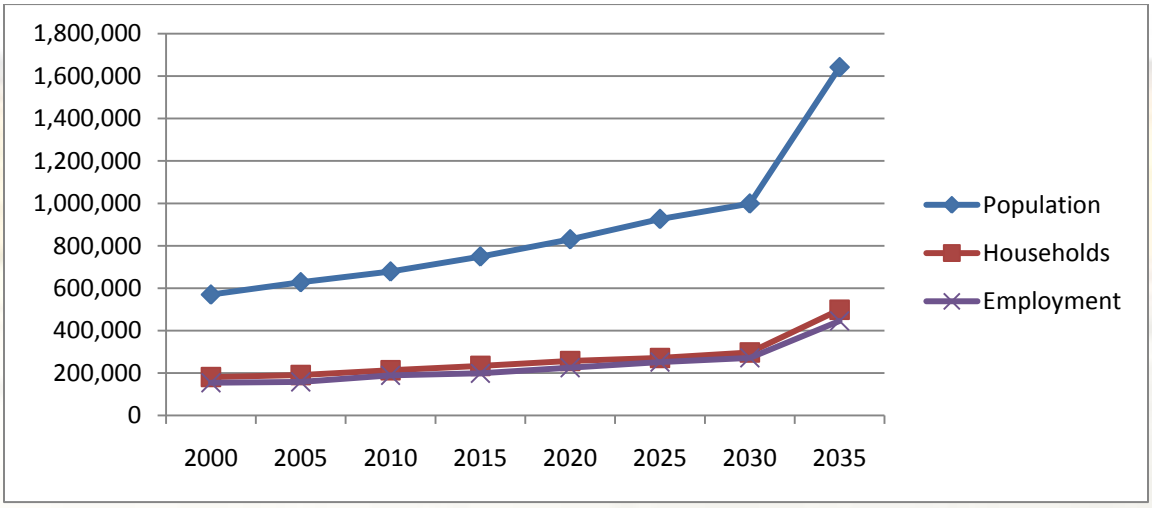
The contrast in size between the communities represents challenges in terms of addressing transportation issues, especially considering their abilities to raise local match funding to federal and state funding programs. Overall, the regional household income falls under the national average, showing the economic disadvantages that occur in the region. Although a majority of the population shifted to the unincorporated urbanized area, the low median income shows less economic activity in this area compared to other cities of Hidalgo County.

Population, household and employment forecasts were summarized along with the 2000 Census data for the Hidalgo County study area in Table 2.3d, and Figure 2.3.6 plots the changes for the variables through the 2000 to 2035 period.

Table 2.3d: Regional Forecasts for the MPO study area

Year	2000	2005	2010	2015	2020	2025	2030	2035
Population	569,686	627,883	678,473	749,151	830,256	926,149	998,814	1,641,770
Households	181,072	190,450	213,428	233,830	256,660	270,991	297,118	498,513
HH size	3.15	3.3	3.18	3.2	3.23	3.42	3.36	3.066
Employment	154,209	158,310	189,196	198,621	225,485	251,946	271,587	445,536
Basic EMP	22.78%	22.19%	18.61%	18.12%	16.31%	22.78%	22.78%	21.18%
Retail EMP	25.81%	35.16%	31.94%	30.54%	26.32%	22.78%	22.78%	23.53%
Service EMP	50.09%	54.65%	49.46%	51.34%	48.50%	46.15%	45.32%	36.87%

Figure 2.3.6: Population Changes as Key Demographic Indicators between 2000-2035



The forecasts show that the population, households and employment will grow through 2035. Much of the population growth can be attributed to in-migration from Mexico. The increase in the single-parent households and the increase in life expectancy are two examples of conditions that are factors that push the increase in the number of households. Since households are the prime generator of trips, the increase in households results in more trips, which in turn generate more congestion. An increase in household size and retail employment is also a forecasted trend through 2035. A shift in economic activity

from basic employment such as agricultural or manufacturing will be a prevalent change through 2035.

People are moving within the region

The demographic forecasting process also consists of determining how the regional control totals for population, household, and employment will be distributed throughout the region in future years. The Hidalgo County Metropolitan Area Boundary (MAB) has been divided into Traffic Analysis Zones. The TAZ structure is how the travel demand model disaggregates the region for the purpose of forecasting the utilization of the transportation network in future years. Thus each TAZ has its share of the population, household, and employment regional totals. Historical data for each TAZ was utilized to determine the growth trends in the number of households and population. Based on the prior experience with demographic forecasting, adjustments were made where trends did not follow a reasonable pattern.

Table 2.3e and Table 2.3f show the distribution of population and employment respectively based on the MPO's planning forecasts and according to 1990 and 2000 Census data. The data shows the proportion or share of the total population for the region that corresponds to each planning area.

Table 2.3e: Population Distribution within the MPO Study & Planning areas (%)

Planning Areas	1990	2000	2005	2010	2015	2020	2025	2030	2035
North West	3.08	1.55	1.72	1.42	2.21	2.45	2.89	2.97	3.05
West Urban	12.78	15.21	16.22	16.62	17.09	17.75	18.82	19.15	19.48
South West Urban	4.10	5.60	5.76	5.80	5.73	5.66	5.73	5.52	5.74
North West	6.37	6.37	5.90	6.34	7.28	7.58	8.02	8.07	8.12
Metro Core	29.09	27.74	26.20	25.32	24.10	21.74	20.92	20.73	20.93
south Metro Core	12.43	13.38	13.56	13.41	12.75	11.95	11.38	10.66	10.13
North East Rural	5.37	4.02	4.13	4.38	4.31	3.89	5.40	5.47	5.54
East Urban	14.24	14.46	14.47	14.75	15.01	15.55	16.42	16.31	16.45
South East Urban	12.09	10.71	10.80	10.94	10.84	10.82	10.86	10.57	10.87
Rural	0.45	0.28	0.32	3.45	0.41	0.48	0.56	0.55	0.54
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Table 2.3f: Employment Distribution within the MPO Study & Planning areas

Planning Areas	1990	2000	2005	2010	2015	2020	2025	2030	2035
North West	N/A	0.04	0.13	0.19	0.25	0.35	0.39	0.52	0.65
West Urban	N/A	9.79	9.08	8.91	8.87	8.89	8.95	9.00	9.05
South West Urban	N/A	2.95	2.88	3.10	3.52	3.87	4.07	4.41	4.75
North	N/A	8.24	7.88	7.75	7.82	7.82	7.90	7.81	7.91
Metro Core	N/A	33.77	36.45	35.17	34.38	34.14	33.92	33.59	33.16
South Metro Core	N/A	25.89	24.57	25.14	25.01	24.50	24.05	23.66	23.33
North East Rural	N/A	1.63	1.76	1.76	1.88	2.00	2.16	2.29	2.42
East Urban	N/A	10.84	10.76	11.61	11.87	12.45	12.14	12.27	12.40
South East Urban	N/A	6.79	6.41	6.65	6.53	6.31	6.33	6.28	6.23
Rural	N/A	2.00	0.08	0.07	0.07	0.07	0.07	0.07	8.00
Total	**N/A**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

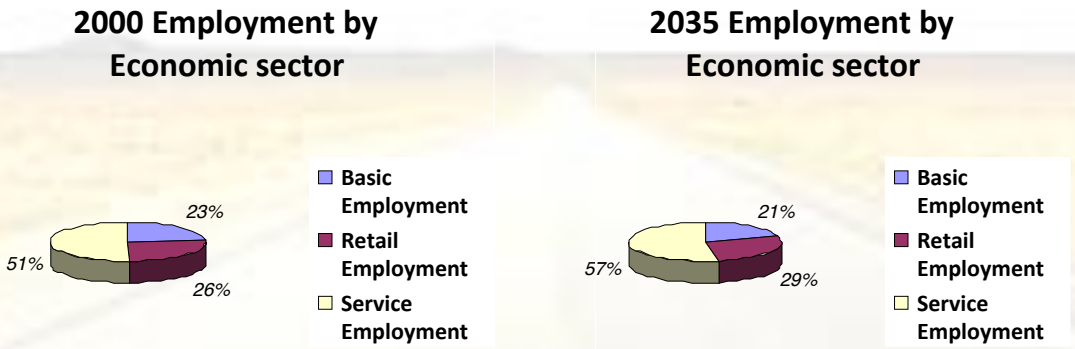
In the population distribution table above, there is a decrease in population in the Central Core area. This figure can be attributed to the increase in the retail economy in this area (and thus where the majority of the employment is concentrated in, according to the Employment Distribution Table) and therefore, a less desirable area for populations to live. Historically, when the valley's economic focus was on agriculture, populations in the Mid-Valley area had the largest concentration of people. Since 1950 the retail sector has been steadily expanding and McAllen (Central Core area) has been the focus.

All of Hidalgo County has shown growth with some core areas growing even faster. Table 2.3g also shows the distribution of employment types in the Hidalgo County MPO Study & Planning areas for Census 2000.

Table 2.3g: Distribution of the Employment by Economic Sector within MPO Study & Planning areas

Planning Areas	Total	Total %	Basic	Basic %	Retail	Retail %	Service	Service %
North West	66	0.04%	12	0.03%	4	0.01%	50	0.06%
West Urban	14,963	9.79%	2,692	7.53%	4,938	12.44%	7,333	9.49%
South West Core	4,511	2.95%	992	2.27%	1,521	3.83%	1,998	2.59%
North	12,591	8.34%	3,082	34.96%	3,051	7.68%	6,458	8.36%
Metro Core	51,608	33.77%	12,505	34.96%	11,359	28.60%	27,744	35.92%
South Metro Core	39,568	25.89%	8,591	24.02%	12,015	30.26%	18,872	24.43%
North East Rural	2,488	1.63%	890	2.49%	628	1.58%	970	1.26%
East Urban	16,566	10.84%	4,771	13.34%	3,972	10.00%	7,823	10.13%
South East Urban	10,377	6.79%	2,172	6.07%	2,217	5.58%	5,988	7.75%
Rural	79	0.05%	65	0.18%	5	0.01%	9	0.01%
Total	**152,817**	**100.00%**	**35,772**	**23.41%**	**39,710**	**25.99%**	**77,245**	**50.55%**

Figure 2.3.7: Distribution of Employment by Economic Sector: 2000 and 2035



Basic Employment – goods producing industry
Retail Employment – industry

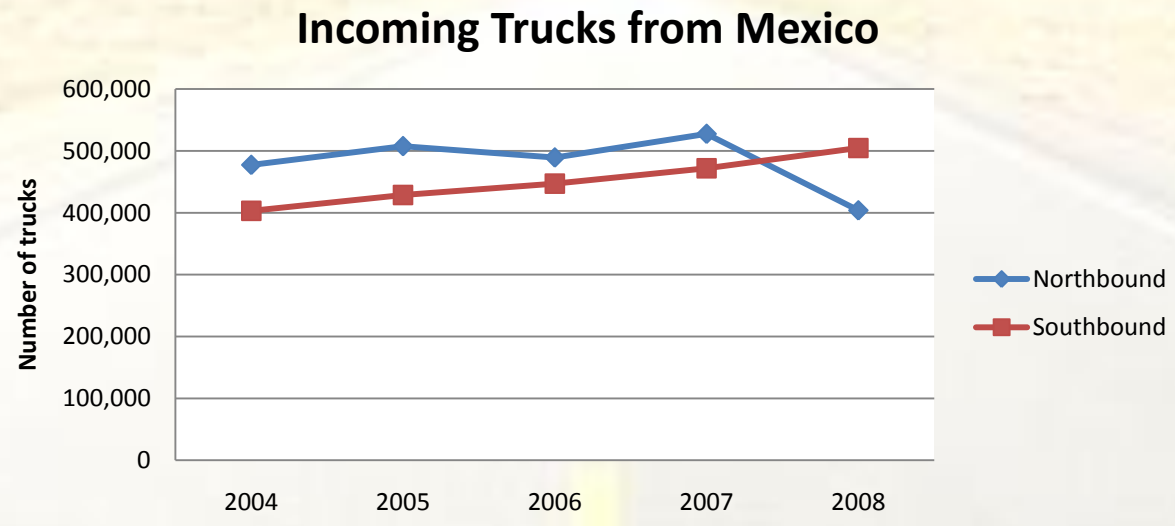
Service Employment – includes transportation, communications, electric, gas, and sanitary services; wholesale trade; retail trade; finance insurance, and real estate; and services.

2.4 Air Quality Issues

SAFETEA-LU requires that MPO's transportation planning efforts comply with the Clean Air Act Amendments of 1990 (CAAA). The CAAA requires that transportation plans and programs conform to the State Implementation Plan (SIP) for air quality. MPOs must make a "conformity determination," and may not adopt any plans or programs that do not conform. In effect, MPOs in "non-attainment areas" are required by law to produce a transportation plan, which contributes towards solving air pollution problems. (See appendix B for definition of non-attainment areas and other air pollution terms). Failure to comply with these regulations could result in the withholding of federal funds.

Hidalgo County and other border TMA's encounter other problems that don't apply to most TMA's in the United States when attempting to combat air pollution. Traffic to and from has increased dramatically largely in part to the North American Free Trade Agreement (NAFTA) as shown in Figure 2.4.1 and Table 2.4.1. With the opening of several bridges throughout South Texas, commercial vehicular traffic and even privately owned automobiles originating in Mexico have caused significant reductions in air quality. Since Mexico does not have the stringent environmental laws as are found in the United States, vehicles commuting to and from Mexico contribute largely to the degradation of air quality.

Figure 2.4.1: Truck Traffic at Hidalgo, Pharr & Progreso International Bridges



Source: International Bridges & U.S. Customs

Table 2.4a: Truck Crossing International Borders in Hidalgo County (Southbound)

	Progresso International Bridge	Pharr International Bridge	Hidalgo International Bridge
January	3,099	37,685	329
February	3,099	38,632	288
March	3,209	39,697	370
April	3,553	43,040	381
May	3,532	40,200	535
June	3,035	39,480	551
July	2,645	38,043	632
August	3,235	300	574
September	3,015	35,980	448
October	3,026	397,015	322
November	2,038	33,079	435
December	2,039	30,935	507
TOTAL	**35,525**	**774,086**	**5,372**

Source: International Bridges & U.S. Customs

It is important to note that the Hidalgo County MPO is an air quality attainment area. There are two Air Monitoring Sites in Hidalgo County see Figure 2.4.4 on the next page to keep track of the air quality in this area. However, it is important that the MPO adopt transportation goals and policies to maintain the quality of air. The MPO must pay special consideration to the very high population and traffic growth rate discussed in Chapter II (section 3). Maquiladora (factory) growth as discussed in Chapter 2 and Chapter 4 will show monitoring progress from our 1999 Plan.

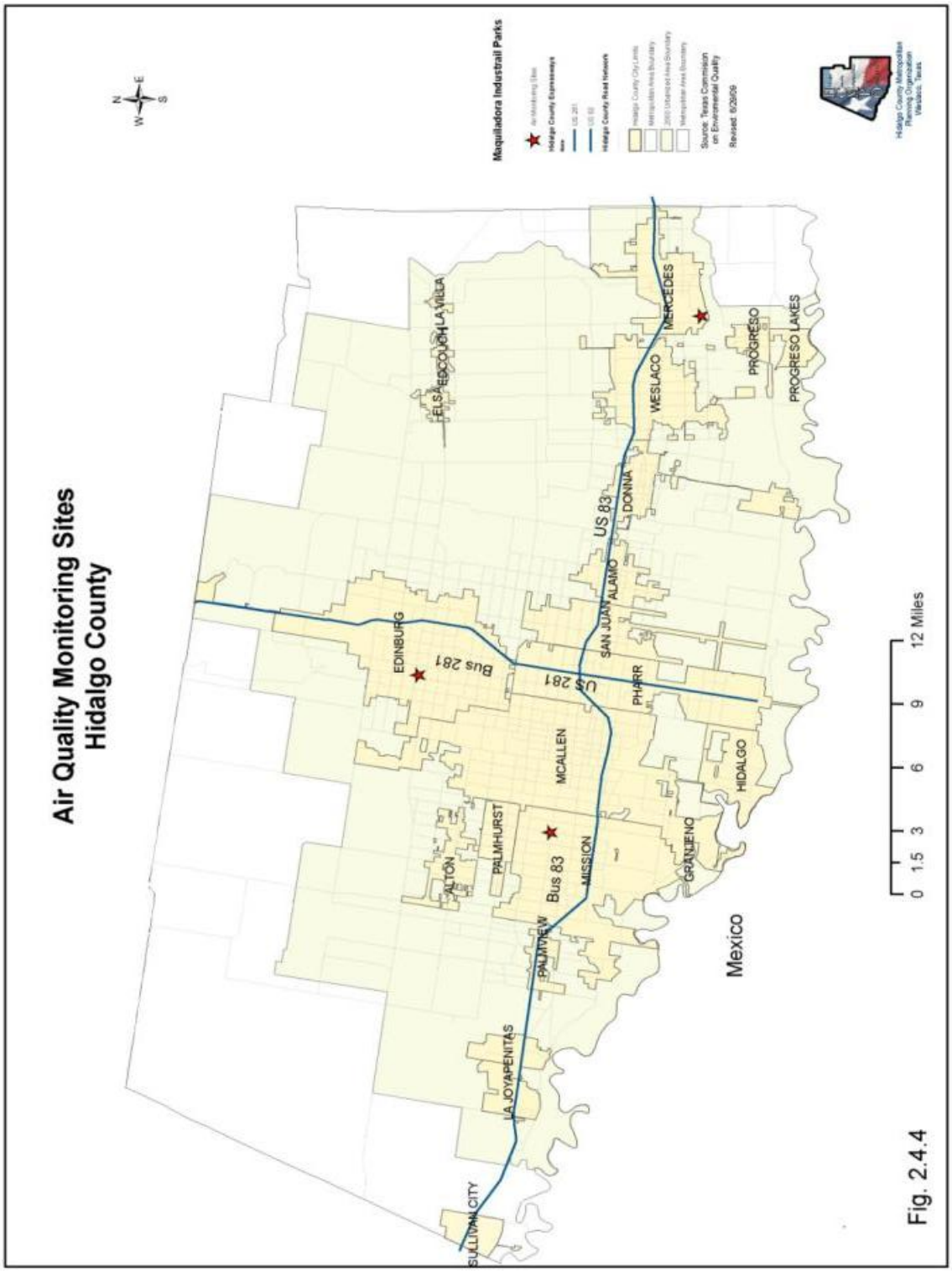

Air Quality Monitoring Sites
Hidalgo County
Maquiladora Industrail Parks
Source: Texas Commission on Environmental Quality
Revised: 9/28/09
Hidalgo County Metropolitan Planning Organization Weslaco, Texas
N
E
S
W
FELSA
EDCOUCH
LA VILLA
MERCEDES
WESLACO
PROGRESO
PROGRESO LAKES
US 83
DONNA
SAN JUAN
ALAMO
EDINBURG
Bus 281
US 281
PHARR
MCALLEN
HIDALGO
PALMHURST
ALTON
Bus 83
MISSION
GRANJENO
PALMVIEW
LA JOYA
PENITAS
SULLIVAN CITY
Mexico
0 1.5 3 6 9 12 Miles

Fig. 2.4.4

2.5 Environmental Issues

SAFETEA-LU provides a framework for federal surface transportation policy through fiscal year 2009 while the nation awaits a new Transportation Bill to be signed. With a total combined budget of more than $247 billion for federal highway, transit, safety, research, and motor carrier programs, SAFETEA-LU is the largest ever public works legislation.

SAFETEA-LU continues with many of the ISTEA and TEA 21 requirements, but it went beyond the planning provisions by:

- Establishing the TCSP grant program.
- Allowing MPO's to list projects that could be initiated if more funds became available
- Allowing non-attainment area boundaries to be retained or extended.

The most significant change in transportation planning requirements under SAFETEA-LU was the consolidation of the 16 metropolitan and 23 statewide planning "factors" into eight "areas" of concern. The first four areas cover Safety, Accountability, Flexibility and Equity issues. The remaining four areas are of particular interest to environmental concerns, are as follows:

- Protect and enhance the environment, promote energy conservation, and improve quality of life
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight
- Promote efficient system management and operation
- Emphasize the preservation of the existing transportation system
- SAFETEA-LU has placed a key priority on protection of the environment and public health. Several key opportunities for environmental protection that were outlined in the law include:
- Greater Flexible Eligibility for funding
- Congestion Mitigation and Air Quality (CMAQ) project funding was increased and could be used in maintenance areas and for public/private initiatives.
- Pedestrian and bike safety education projects, as well as wildlife and wetlands protection projects are now eligible.
- Up to 20 percent of the funds for highway reconstruction, rehabilitation, and restoration projects can be used for pollution mitigation such as storm water treatment or other water pollution mitigation strategies.

- Bicycle safety improvements are now eligible to compete for the $3 billion Surface Transportation Programs (STP) funds set aside for safety construction activities.

SAFETEA-LU also established a streamlined environmental review process by which federal agencies will work more closely together to review the environmental impacts of major highways and transit projects under the National Environmental Policy Act (NEPA), the Endangered Species Act, storm water permitting requirements and air quality conformity analyses. The use of concurrent reviews is emphasized by SAFETEA-LU; furthermore, it establishes a dispute resolution process to resolve conflicts between federal agencies within established time frames.

The Environmental Streamlining National Memorandum of Understanding was signed in July 1999 by the following:

- Deputy Secretary, U. S. Department of Transportation
- Assistant Secretary, Policy, Management and Budget-U.S. Department of Interior
- Under Secretary for Natural Resources and Environment-U.S. Department of Agriculture
- Under Secretary for Oceans and Atmosphere-U.S. Department of Commerce
- Assistant Secretary of the Army-(Civil Works)
- Chairman, Advisory Council on Historic Preservation
- Acting Deputy Administrator-U. S. Environmental Protection Agency

One of the motivations behind the push for environmental streamlining was the notion environmental reviews were very time consuming and too often environmental agencies would wait until the last minute to raise concerns.

Although the new streamlined process should have avoided some of the delays experienced in implementing projects, it also shrank the time frame in which environmental issues were considered. The key is to participate early in the transportation planning process and work closely with MPO's, states, or other stakeholders, and TCSP program grantees to ensure that environmental impacts are considered from the beginning, before decisions are made and projects are selected for development.

Environmental projects continue to be of great importance and focus due to the increase in overall highway and bridge construction funding at approximately 40 percent. Within the

regional planning processes across the country, there will be choices that target investments that discourage urban sprawl and those that support more livable communities with less dependency on single occupant vehicle travel.

The infrastructure investments coming out of state and local planning processes will help shape urban development patterns well into the next century. For this reason, raising the public's awareness of the new SAFETEA-LU funding opportunities for environmentally beneficial projects, providing technical support to make funded projects more effective, and seeking out new and innovative programs will be the key to a healthy and sustainable transportation system for the future.

Section 4(f)

Section 4(f) has been part of Federal law in some form since 1966. It was enacted as Section 4(f) of the Department of Transportation (DOT) Act of 1966 {hence the reference to "Section 4(f)"}. Section 4(f) was originally set forth in Title 49, United States Code (U.S.C.), Section 138.

In January 1983, as part of an overall recodification of the DOT Act, Section 4(f) was amended and codified in 49 U.S.C., section 303. The wording in section 303 reads as follows:

(A) It is the policy of the United States Government that special efforts are made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.

(B) The Secretary of Transportation will cooperate and consult with the Secretaries of Interior, Housing and Urban Development, and Agriculture, and with the States, in developing transportation plans and programs that include measures to maintain or enhance the natural beauty of lands crossed by transportation activities or facilities.

(C) The Secretary may approve a transportation program or project requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge, or land an historic site of national, state, or local significance (as determined by federal, state, or local officials having jurisdiction over the park, recreation area, refuge, or site) only if–

(1) There is no prudent and feasible alternative to using that land

(2) The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

Section 138 was not amended, so the wording in the two sections is once again different. The legislative history of the 1983 re-codification indicates that no substantive change was intended. Further, because of familiarity with Section 4(f) by thousands of federal and state personnel, the Federal Highway Administration (FHWA) continues to refer to the requirements as Section 4(f).

Section 138 does not establish any procedures for preparing Section 4(f) documents, for circulating them, or for coordinating them with other agencies. The statute does not require the preparation of any written document, but the FHWA has developed procedures for the preparation, circulation, and coordination of Section 4(f) documents. The purpose of these procedures is to establish an administrative record of the basis for determining that there is no feasible and prudent alternative, and to obtain informed input from knowledgeable sources on feasible and prudent alternatives and on measures to minimize harm.

Numerous legal decisions on Section 4(f) have resulted in a US DOT policy that conclusions on no feasible and prudent alternatives and on all possible planning to minimize harm must be well documented and supported. The Supreme Court in the Overton Park case {Citizens to Preserve Overton Park V. Volpe, 401 U.S. 402 (1971)} ruled that determinations on no feasible and prudent alternative must find that there are unique problems or unusual factors involved in the use of alternatives or the at the cost, environmental impacts, or community disruption resulting from such alternatives reach extraordinary magnitudes.

Important Points

Section 4(f) applies to all historic sites, but only to publicly owned parks, recreational areas, and wildlife and waterfowl refugees. These recreational areas when owned by do not apply. The FHWA does, however, strongly encourage the preservation of such privately owned lands. If a governmental body has a proprietary interest in the land (such as fee ownership, drainage easement, or wetland easement), it can be considered "publicly owned."

When projects have been in litigation, Section 4(f) has been a frequent issue, therefore, it is essential that the following points are completely documented: (1) the applicability/non-

applicability of Section 4(f); (2) the coordination efforts with the official(s) having jurisdiction over or administering the land (relative to significance of the land, primary use of the land, mitigation measures, etc.) (3) the location and design alternatives that would avoid or minimize harm to the Section 4(f) land; and (4) all measures to minimize harm, such as design and landscaping.

There are often concurrent requirements of other Federal agencies when Section 4(f) lands are involved in highway projects. Examples include compatibility determinations for use of lands in the National Wildlife Refuge System and the National Park System (Figure 2.5.1 source: Fish & Wildlife Refuge). Secondly, consistency determinations for the use of public lands are managed by the Bureau of Land Management. In addition, direct determinations and adverse effects for Wild and Scenic Rivers under the jurisdiction of such agencies as the U.S. Fish and Wildlife Services, National Park Service, Bureau of Land Management, and Forest Services. Land approval conversions are covered by the Federal-aid in Fish Restoration, Federal-Aid in Wildlife Restoration Acts (the Dingell-Johnson and Pittman-Robertson Acts), the Recreational Demonstration Projects and the Federal Property and Administrative Service (Surplus Property) Acts, and Section 6(f) of the Land and Water Conservation Fund Act. The mitigation plan developed for the project should include measures that would satisfy the requirements for these determinations and for Section 4(f) approval. When Federal lands are needed for highway projects they are not subject to Section 4(f). There is still a need for close coordination with this federal agencies owning or administering this type of land in order to develop a mitigation plan that would satisfy any other requirements for a land transfer.

Differences between the Federal Highway Administration and Department of Interior Positions:

Constructive Use

The Department of the Interior (DOI) stated they might consider the following as examples of constructive use: (1) where the proximity of a highway alters a habitat area in a wildlife refuge or interferes with the normal behavior of wildlife populations; (2) where a highway reduces the current level of access to a park or recreation area; and (3) where a highway changes the character of the view from a historic district that is incompatible with the historic nature of the district. The DOI's description of the threshold for constructive use of Section 4(f) resources contains terms such as alters, interferes, reduces and changes. The State of Texas Department of Transportation agrees that these types of impacts where they are sufficiently severe to substantially impair the resource would be a constructive use.

However standing alone, the Federal Highway Administration (FHWA) views these terms as establishing a lower threshold than those generally found in case law. A number of court decisions, including Adler v. Lewis, 675 F. 2d 1085 (9th Cir. 1982) have established "substantial impairment" as the threshold for constructive use.

Wild and Scenic Rivers

The DOI stated that:

(1) all rivers now in the National Wild and Scenic Rivers System have been designated because of park recreation, conservation, and values, (2) all publicly owned lands within those boundaries are used for Section 4(f) purposes, (3) the management plans will show that the primary use is, in accordance with the Wild and Scenic Rivers Act, for one or more Section 4(f) purposes, and (4) officials having jurisdiction will in all cases and will certify that to be so if asked. The FHWA does not necessarily base application of Section 4(f) on titles or systems designation. Instead, FHWA bases Section 4(f) application on actual functions. If portions of the publicly owned lands are designated for or function primarily for recreational purposes, then those portions would be subject to Section 4(f). It is not believed that publicly owned lands designated only for conservation values are recreational areas subject to Section 4(f).

2) Approximately 2 weeks under review. Once it is reviewed a Coordinator Letter is issued and if the project meets the specified criteria it is sent to the Texas Parks and Wildlife for another review within a 45-day window. At this point, the Texas Parks and Wildlife spends up to 30 days with the Historical Commission coordinating with a historian on every project. At this point it is determined if the area or facility of interest needs a survey.

3) Once the response comes back the document is sent to the federal government where it is reviewed as a federal project. The Federal agencies review the plan and might approve the plan for further processing.

4) Once approved for further processing, a public hearing advertisement is published 30 days prior to a hearing. Furthermore it is required by the DOT and FHWA that Section 4(f) property be publicized and evaluated for alternative methods for taking property. The state of Texas advertises three times in order to receive public input.

5) After 10 days of public hearings, a summary analysis is prepared, and FHWA may issue a Finding of No Significant Impact (FONSI).

2.6 The Safe, Accountable, Flexible and Efficient Transportation Equity Act of 2005 (SAFETEA-LU)

During the previous 2005-2030 MTP update adopted by the HCMPO, FHWA was operating under its fourth continuing resolution entitled the **Surface Transportation Extension Act of 2004.** This act passed the House and Senate on July 22, 2004 extending the Highway Program until September 24, 2004. This act was executed for the purpose of extending the program limits of the Transportation Equity Act for the 21st Century (TEA-21) until the new transportation bill, SAFETEA-LU, could be approved by the house and the senate.

On August 10, 2005, the President signed into law the **Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) Bill**. With guaranteed funding for highways, highway safety, and public transportation totaling $244.1 billion, SAFETEA-LU represents the largest surface transportation investment in our nation's history. The two landmark bills that brought surface transportation into the 21st century, the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and the Transportation Equity Act of the 21st Century (TEA-21), shaped the highway program to meet the nation's changing transportation needs. SAFETEA-LU builds on this firm foundation, supplying the fund and refining the programmatic framework for investments needed to maintain and grow our vital transportation infrastructure.

SAFETEA-LU addresses the many challenges facing our transportation system today, challenges such as improving safety, reducing traffic congestion, improving efficiency in freight movement, increasing intermodal connectivity, and protecting the environment, as well as laying the groundwork for addressing future challenges. SAFETEA-LU promotes more efficient and effective federal surface transportation programs by focusing on transportation issues of national significance, while giving state and local transportation decision makers more flexibility for solving transportation problems in their communities.

SAFETEA-LU continues a strong fundamental core formula program emphasis coupled with targeted investment, featuring safety, equity, innovative finance, congestion relief, mobility and productivity, efficiency, environmental stewardship, and environmental streamlining.

Safety:

SAFETEA-LU establishes a new core Highway Safety Improvement Program (HSIP) that is structured and funded to make significant progress in reducing highway fatalities. It creates a positive agenda for increased safety on our highways by almost doubling the funds for infrastructure safety and requiring strategic highway safety planning, focusing on

results. Other programs target specific areas of concern, such as work zones, older drivers, and pedestrians, including children walking to school, which further reflect SAFETEA-LU's focus on safety.

Equity:

The new Equity Bonus Program has three features, one tied to Highway Trust Fund contributions and two that are independent. First, building on TEA-21's Minimum Guarantee concept, the Equity Bonus program ensures that each State's return on its share of contributions to the Highway Trust Fund in the form of gas and other highway taxes is at least 90.5 percent in 2005 building toward a minimum 92 percent relative rate of return by 2008. In addition, every State is guaranteed a specified rate of growth over its average annual TEA-21 funding level, regardless of its Trust Fund contributions. Selected states are guaranteed a share of apportionments and High Priority Projects no less than the State's average annual share under TEA-21.

Innovative Finance:

SAFETEA-LU makes it easier and more attractive for the private sector to participate in highway infrastructure projects, bringing new ideas and resources to the table. Innovative changes such as eligibility for private activity bonds, additional flexibility to use tolling to finance infrastructure improvements, and broader Transportation Infrastructure Finance and Innovation Act (TIFIA) and State Infrastructure Bank (SIB) loan policies, will all stimulate needed private investment.

Congestion relief:

Tackling one of the most difficult transportation issues facing us today, congestion, SAFETEA-LU gives States more flexibility to use road pricing to manage congestion, and promotes real-time traffic management in all States to help improve transportation security and provide better information to travelers and emergency responders.

Mobility and productivity:

SAFETEA-LU provides a substantial investment in core Federal-aid programs as well as programs to improve interregional and international transportation, address regional needs, and fund critical high-cost transportation infrastructure projects of national and regional significance. Improved freight transportation is addressed in a number of planning, financing, and infrastructure improvement provisions throughout the Act.

Efficiency:

The Highways for Life pilot program in SAFETEA-LU will advance longer-lasting highways using innovative technologies and practices to speed up the construction of efficient and safe highways and bridges.

Environmental stewardship:

SAFETEA-LU retains and increases funding for environmental programs of TEA-21, and adds new programs focused on the environment, including a pilot program for non-motorized transportation and Safe Routes to School. SAFETEA-LU also includes significant new environmental requirements for the Statewide and Metropolitan Planning process.

Environmental Streamlining:

SAFETEA-LU incorporates changes aimed at improving and streamlining the environmental process of transportation projects. These changes, however, come with some additional steps and requirements on transportation agencies. The provisions include a new environmental review process for highway, transit and multimodal projects, with increased authority for transportation agencies, but also increased responsibilities.

SAFETEA-LU continues the TEA-21 concept of guaranteed funding, keyed to Highway Trust Fund (Highway Account) receipts. In essence, the guaranteed amount is the floor, it defines the least amount of the authorizations that may be spent. Federal Aid Highway Program (FAHP) authorizations in SAFETEA-LU total $193.1 billion. Adding in the $100 million per year authorized in title 23 for Emergency Relief, authorizations for FAHP total $193.6 billion. Within total authorizations, the amount guaranteed for the FAHP is estimated to be $193.2 billion.

If overall discretionary budget caps were in place, not so at the time of enactment of SAFETEA-LU, highway and highway safety programs would be protected by a "Firewall" from having to compete with other discretionary programs for room within those caps. The highway category firewall is established based on assumptions about future receipts to the Highway Account of the Highway Trust Fund. Beginning with FY 2007, when newer projections of receipts and actual receipts become available, the highway category firewall is adjusted accordingly. To smooth out the effects of any adjustments, the calculated adjustment will be split over two years. When the firewall is adjusted, equal adjustments are made to the highway contract authority (called Revenue Aligned Budget Authority - RABA), and the Federal-aid highway obligation limitation.

2.7 Forecasting Methodologies and Modeling

Travel Demand Model (TDM)

The 2035 MTP is a response to the challenge of predicting, or forecasting, how the travel patterns of the population are going to be during the next 25 years. It provides solutions in anticipation to potential congestion problems in the transportation network in the future. The Hidalgo County MPO's ***travel demand model*** (TDM) for the MPO study area is a powerful tool that is used to address these tasks.

The MPO travel demand model follows the traditional three-step process that answers, for a given future year, the questions of:

- How often will people travel? (Trip Generation)
- Where will people go? (Trip Distribution)
- What route people use for their travel? (Trip assignment)

The travel demand model provides information on conditions that happen at a specific point in time. The 2035 MTP includes TDM applications for several future points to show how conditions would gradually change through the target year 2035. Federal regulations dictate that the TDM analyses within the life of a long-range plan cannot be more than 10 years apart. The Hidalgo County MPO considered an increment of 5 years to perform this TDM analyses. Thus, 2010, 2015, 2020, 2025, 2030 and 2035 were selected as the years on which the analysis was made. For validation purposes, the model uses 2004 as the base year. These years are referred to throughout the MTP process as the ***network analysis years.***

There are two main inputs that are required to execute the model for each network year: the physical characteristics and operational attributes of the transportation network, and the demographic profile of the population.

Transportation network can be defined as the collection of all transportation alternatives, or modes, that are available to the population for their travel within the study area. The Hidalgo County TDM includes only the roadways. Transit services and Rail services were not included in the model as they are still in the developing stage within the Hidalgo County. These roadways are represented in the model with operational attributes and characteristics that affect the way in which the trips are made on them. Examples of these attributes for roadways are the number of lanes, capacity, maximum speeds allowed, or direction of flow.

The socio-economic profile of the population is a key input to TDM because it determines the trip-making characteristics of the population. The demographic data that are used include population, number of households, employment, and income. These variables will determine the number of trips, the purpose of the trips (e.g., work, shopping) and the origin-destination of trips.

Network Development

As the study area expanded in all directions, the Network has also been expanded as compared to the 2004 Network. Network Development for the Travel Demand Forecasting Model was done following a step-wise procedure with some assumptions. The step-wise procedure is discussed as follows:

Step 1. **Zoning:** The Hidalgo County has been divided into 936 Traffic Analysis Zones (TAZs) using the Census Block Groups. And each TAZ has a Centroid.

Step 2. **Network:** Following the boundaries of the TAZs the street network has been developed. And all the remaining streets which are within the respective TAZs were converted into the centroidal connectors. Centroidal Connectors which account for the streets within the TAZs load the trips on the Network created.

Step 3. **Coding of the Network:** This step of coding is of paramount importance for the TDM to be successful. The network created has been coded based on the Functional Classification (freeways, highways, principal arterials etc.), Facility type (Principal arterial divided, minor arterial undivided etc.), and Area type (CBD, Fringe, Urban, Suburban and Rural). Depending on Functional Classification, Facility type and Area type the capacities of the respective roads were given. These capacities were taken from the TXDOT developed Speed-Capacity look up tables. Some network elements which were not available were coded by driving to the particular location.

Applications by MPO and Transit Operator

Travel Demand Forecasting Model has been adopted by the MPO for Highway Planning. This model is not applied for Transit planning. This is due to the limited transit facilities in the Hidalgo County. In the near future MPO is planning to use the Travel Demand Model for the Transit also.

Applications of TDM by MPO

The Travel Demand Model has been used as the major criteria for the project selection process in the 2030 Metropolitan Transportation Plan of the Hidalgo County.

Criteria for Project Selection for the Metropolitan Transportation Plan

Project selection is two sequential processes: development of the Transportation Improvement Program (TIP) and development of the twenty-five-year MTP. ISTEA introduced new objectives and values into the decision-making process to open it up to input from citizens and special interest groups. In the preparation of this plan update, parties representing diverse points of view were given opportunities to be heard via a series of public outreach instruments described in section 2.6 and appendix A.

TEA21 gives no absolute authority to either the State or the MPO in selecting which projects will be funded. The law stresses cooperation, and assigns a leading role to either the State or the MPO depending on the situation. In addition, the State and MPOs are required to certify to FHWA that the joint planning process is "continuing, cooperative, and comprehensive."

For areas with population of 200,000 and over such as the Hidalgo County MPO (HCMPO) the State (in cooperation with the MPO) has oversight over projects to be funded from TEA21's National Highway System (NHS), Bridge, Interstate, and Federal Lands Program. For projects funded by all other TEA21 programs (such as the Surface Transportation Program (STPMM) or the Congestion Mitigation and Air Quality program), the MPO has selection power in cooperation with the State.

Just like in 2004, when it came time to update the Metropolitan Plan, the MPO Technical Committee had several issues to deal with. One important issue was that while the Transportation Improvement Program (TIP) is the implementation tool of the MTP there are several valid reasons to have different criteria for 25 years worth of projects than 3 years of projects identified in the TIP. For example, the status of right of way (ROW) is very important when we build the projects in the TIP but until that time the need for a project should outweigh the ease of construction of projects. If we used the TIP criteria especially for selecting 25 years of projects some valuable but difficult projects would not get selected. If the criteria for the MTP and TIP are too radically different, then a conflict of priority can occur. To prevent confusion the Technical Committee developed Four (4) criteria for a maximum of One Hundred (100) points to prioritize groups of projects for the Metropolitan Transportation Plan (MTP).

Another goal of developing this plan update was to keep it simple so the public could understand the whole reasoning in project selection and the decision makers could use this plan effectively. In other words, the MPO Technical Committee was striving to make this complex transportation plan as user friendly as possible. Because we are required to update this plan in the year 2010, the Hidalgo County MPO decided to attempt a simple, easy to understand selection criteria for a twenty five year plan and thinks it has a solid enough TIP selection process to compensate for the plan if the update does not work as intended.

The Hidalgo County MPO will be evaluating this process throughout the five years between 2008 and 2013 and will make adjustments to the process in 2010 as needed. The current TIP is through the year 2011 and the next TIP process will be selecting projects from this plan through the years 2011 to 2014. This plan update is a bold step in the spirit of TEA21 to bringing the transportation planning process out of the hands of the technocrats and placing it in the hands of the public. While the criteria look simple there is a lot of data that goes into each one and it has solid transportation planning theory behind it.

Figure 2.7.1: Mobility Project Selection Criteria

Mobility Funds Selection Criteria HCMPO - as of 7/22/2009

Transportation Indicator	Point Distribution	Total Possible
Winter FY 2009 CMP	Green = 0	30
	Yellow = 15	
	Red = 30	
Cost Effectiveness from Forecast Year (cost/traffic)	0	20
	5	
	10	
	13	
	16	
	18	
	20	
LOS Base Year Model	F=30	30
	E=20	
	D=15	
	C=10	
	B=5	
	A=0	
LOS Forecast Year Model with improvements	F=0	20
	E=0	
	D=2	
	C=9	
	B=15	
	A=20	

Projects that were identified in the MPOs Spring Congestion Management Process (CMP) were identified for the selection criteria and points were distributed based upon the congestion levels identified in the CMP. Red, the most congested, was awarded 25 points, Yellow, which is stable, 15 points and Green, free flow, was awarded no points. The Criteria subcommittee also reviewed the Level of Service (LOS) for the base year, 2004, and the transition of LOS from No Build scenario to forecast year 2035. Based upon information given on the LOS, points were awarded based upon the level of service identified for the base year and the transition of LOS from No Build scenario to forecast year. However, the scoring works differently for each year based upon the LOS. In the base year point were distributed with the greatest amount of points given to the most congested corridors, as shown in figure A, LOS F was given 25 points while LOS A was awarded 0 points.

Points were distributed for forecast year 2035 based on the transition of LOS from No Build scenario to the forecast year 2035 model with the MTP projects incorporated in it. The point distribution in this case can be better understood in the Figure B. For instance, if a project has a LOS "F" in the No Build scenario and the same project, after improvements in the forecast year 2035 has a LOS "A" it was awarded 25 points since it showed a great deal of improvement to LOS from the no build scenario.

Finally the Data Criteria sub-committee evaluated the need to identify those projects that were truly cost effective as well as addressing the level of service of a corridor. Those projects that were identified as the most cost effective were awarded a greater number of points than those that were not identified as cost effective. This process assured that those projects that were truly identified as needed and were the most cost effective received the greater amount of points and thus were ranked higher.

Addressed in agreement between MPO and TXDOT

Responsibilities of TXDOT. The responsibilities of the department are as follows:

- Make available to the MPO the appropriate federal transportation planning funds and the required non-federal, in-kind matching funds as authorized by the Texas Transportation Commission. Federal transportation planning funds will be distributed to the MPOs based on a formula mutually agreed to by the department, Federal Highway Administration (FHWA) and Federal Transit Administration (FTA).
- Provide, as appropriate, technical assistance and/or guidance in the collection, processing, and forecasting of socio-economic data needed for development of traffic forecasts and planning proposals within the Metropolitan Planning Area.

- Collect, process and forecast vehicular travel volume data in cooperation with the MPO.
- Jointly promote the Intermodal development of the State's transportation system within the Metropolitan Planning Area by identifying points in the system where access, connection and coordination between the modes and inter-urban facilities would benefit the entire system.
- Share information and information sources concerning transportation planning issues.

Responsibilities of the MPO. The responsibilities of the MPO are as follows:

- Use funds provided in accordance with (TXDOT responsibilities) to develop and maintain a comprehensive regional transportation planning program in conformity with requirements of 23 USC Section 134(f) and 49 USC Section 5303.
- Assemble and maintain an adequate, competent staff to perform all appropriate MPO activities required by law. A "Transportation Planning Director" shall be designated to administer the program. The Transportation Planning Director, who shall serve in a full time capacity for Transportation Management Areas, shall take planning policy direction from and be responsible to the designated MPO Transportation Policy Board. For the non-Transportation Management Areas, the Transportation Planning Director shall take planning policy direction from and be responsible to the designated MPO Transportation Policy Board. All MPO Transportation planning staff shall be supervised by the Transportation Planning Director regardless of agency affiliation.

  The Transportation Planning Director shall also act as a liaison to the department's transportation planning program through the department's district offices and the department's Transportation Planning and Programming Division's representative.
- All employees of the MPO shall have such knowledge and experience as will enable them to perform the duties assigned to them.
- Collect, maintain, forecast and report to the department on a timely basis appropriate socio-economic, roadway and travel data, in cooperation with Texas Department of Transportation.
- Maintain required accounting records for state and federal funds consistent with current federal and state requirements.
- Prepare all required plans, reports, programs, data and certifications in a timely manner.

- Develop a Metropolitan Transportation Plan, a Transportation Improvement Program and a Unified Planning Work Program for the Metropolitan Planning Area that will complement the Statewide Multimodal Transportation Plan required by the state and federal law. At a minimum the MPO shall consider in their planning process the applicable factors outlined in 23 USC Section 134(f).
- Share information and information sources concerning transportation planning issues.

The Technical Advisory Committee (TAC) has a major role in the decision making along with MPO. The role of TAC is to:

- Provide the assumptions for developing the Travel Demand Forecasting Model
- Provide documentation of the assumptions showing the reasons for the assumptions
- Provide Data Resources for example identifying the school attendance zones
- Provide Zoning data (land use density)
- Developing the selection criteria for Metropolitan Transportation Plan (MTP) and Transportation Improvement Program (TIP)
- Develop total MTP project listing and provide important data for some off system projects for which TXDOT does not have any information
- Come up with Final MTP Project Listing before the adoption of the Transportation Policy Committee (TPC)

2.8 Progress for the 2004 Plan

The HCMPO has approved a "Metropolitan Area Transportation Plan for Hidalgo County" every 5 years. The objective of the plan has been to **"Provide a Balanced Transportation System",** and it remains. The plan called for the continued development and support of alternative modes of transportation such as transit, rail, bicycles lanes, and pedestrian trials. Greater detail of these elements will be discussed in chapter 4 of this update.

Another objective of the plan was to **"Provide equal accessibility for all persons"**. The plan states that not one individual segment of the urbanized area's population would have an overwhelming advantage in level of mobility than what was proposed via the implementation of this plan. This objective becomes apparent when we look at this plan mapped out. The implementation process has taken place throughout the 5 years from the

last MTP update and with the assistance and cooperation from all planning partners in the Hidalgo County urbanized area.

Other objectives under the mobility goal were to **"Increase Transit", "Increase Non-motorized Transportation", "Reduce Congestion", and "Promote Mobility through Land Use Decisions".** Through the transportation planning progress since the last MTP update, the HCMPO has kept the objectives in mind. As part of the objective, the HCMPO has played an active role in the Transit Advisory Panel (TAP) which promotes regionalism planning. Under the same objective, the non-motorized transportation has identified the proposed projects while an inventory is being worked on which will facilitate a seamless connectivity throughout the urbanized area. In order for the HCMPO to be successful in fulfilling its objectives, the Congestion Management Process (CMP) is used to identify congestion and to provide recommendations to reduce congestion in our urbanized roadways. As a whole, land use decisions plays a very important role in all modes of transportation, and enables all planning partners to have a better perspective as to where our planning area is heading to.

A second goal with several objectives was to **"Preserve and Protect the Natural Environment".** Objectives toward this goal were:

- ✓ **Maintain Air Quality**
- ✓ **Reduce Single-Occupant Vehicles**
- ✓ **Preserve Flora and Fauna Species**
- ✓ **Conserve Energy**

The Hidalgo County Metropolitan Area has maintained its status as an attainment area under the terms of the federal Clean Air Act Amendments of 1990 and new stricter requirements were enacted in 2003. As section 2.4 points out, we should strive to maintain that status as we continue to grow. Hidalgo County's consistent growth rate at 4% for this area may soon be one of the largest population concentrations in the nation. Regardless of the steady growth rate Hidalgo County continues to attain environmentally clean air. We should not take clean air for granted. We plan to meet the clean air objective by reducing single occupant vehicles on our roads and highways. As was discussed at the beginning of this section, Hidalgo County MPO has made considerable progress in developing alternatives to the private automobile such as education in car pooling to work, grouped school children deliveries, and safe to school bicycle routes. At this stage, it would be very difficult to force the public out of their private autos; nevertheless, the MPO is still in the

process of developing alternatives such as mass transit, development of transit routes to higher education facilities, and development of career transportation routes. The residents of Hidalgo County like Americans everywhere still have a love affair with the private automobile and unfortunately up until June of 1997 it was the only choice many residents had. This is not the case today.

Section 2.5 discusses the process any project goes through during the planning and design stages to ensure we have met this objective of preserving the natural fauna species. Some examples are the wildlife tunnels included in the projects to enable travel of the ocelot, bobcat, and the jaguarondi to and from their natural habitats. Furthermore, the extension of the Santa Ana Wildlife Refuge boundaries to go north along the main waterway canal for the northeastern section of Hidalgo County up to the Willacy County line has helped to preserve these endangered species within our county.

The Hidalgo County MPO has attempted to conserve energy by reducing the amount of time vehicles remain idle during traffic. The implementation of the Intelligent Transportation System at the Pharr Interchange Bridge between Mexico and the US helped to conserve energy by balancing the wait times and delays at various crossing resulting in lower fuel consumption. Hidalgo County MPO Congestion Management System objectives are discussed in Section 6 of Chapter 4.

The third goal of the Plan is to **"Promote Commerce and International Trade".** The objectives were to develop and maintain an efficient system of intermodal terminals and facilities that foster the efficient transfer of people and goods between various modes of transport. Another objective was to reduce congestion. Since 1995, the MPO has begun to take a pro-active approach towards reducing congestion by implementing our Congestion Management Process. This will be discussed in greater detail in Section 4.6. The private sector has been busy building efficient truck terminals throughout the metropolitan area. The MPO will use this information in its project selection criteria for both this plan update and the Transportation Improvement Program (TIP).

The fourth goal of the Plan was **"Standardize Roadway Design and Subdivision Ordinances throughout the County".** On February 1997, HCMPO TPC adopted the County Thoroughfare Plan which has gone thru several amendments since. This plan was a standard Roadway design which includes R.O.W. requirements for various levels of the

roadway functions. TxDOT Pharr District office and the HCMPO have also agreed to a R.O.W. policy for acquiring the necessary right-of-ways. Figure 2.8.1, in the Appendix, is the most current Hidalgo County Thoroughfare Plan map. The HCMPO is currently working on an update to the Thoroughfare Plan, and for more information, please refer to chapter 3.4.

The Plan called for **"Establishing Data Collection and Monitoring Systems".** In 1994, the Hidalgo County MPO was less than two years old and lacked the comprehensive data necessary to establish baseline levels for various functions of the transportation system. Since that time, the MPO has established a working transportation model, a working Pavement Management System, a Congestion Management System, a Incident Management System, and assisted the US Census Bureau with the 2000 Census. We have also established traffic counters so MPO staff can gather random traffic counts. This factor allows us to have immediate data for transportation planning purposes. The MPO also has established relationships with the various law enforcement agencies to assist in gathering data, to determine high accident locations "Hot Spots", Our Incident Management System has helped to improve safety of the transportation system. Safety will continue to play a significant role in our project selection criteria for the TIP.

3.0 Vision, Goals and Objectives

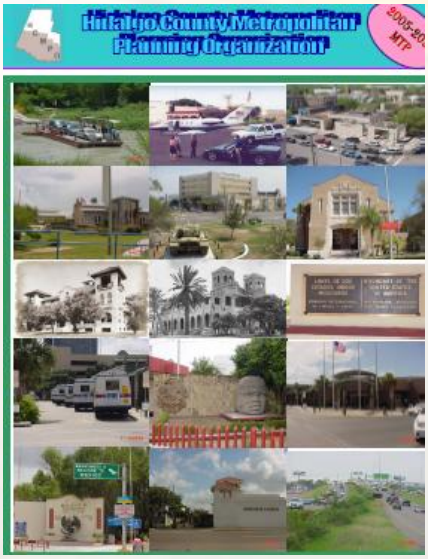
The Hidalgo County Metropolitan Planning Organization has worked to develop a vision of a transportation system that takes into account the current needs of the area as well as the anticipated future growth.

The plans set forth by the HCMPO are in accordance with regulations set forth by various agencies such as the Federal Highway Administration, Federal Transit Administration, and the United States Department of Transportation.

The major goals of the HCMPO include rehabilitation and preservation of the existing network, as well as employing a corridor analysis approach to construction when selecting projects. Furthermore, the HCMPO works diligently in providing for the needs of the county given the limited funding available.

3.1 The Hidalgo County MPO Vision

The vision for the development of the transportation system and its infrastructure must look towards the anticipated growth of the Rio Grande Valley. As we move towards our vision, the MPO seeks one that will be environmentally friendly as well as care for the land as we build it. A vision will re-enforce economic and social goals leading to increased accessibility and mobility. These goals will assist us as we pursue excellence in our educational, occupational, familial, social, and religious opportunities. Through the means of transportation, our objective is to continuously provide and make available these opportunities in Hidalgo County.



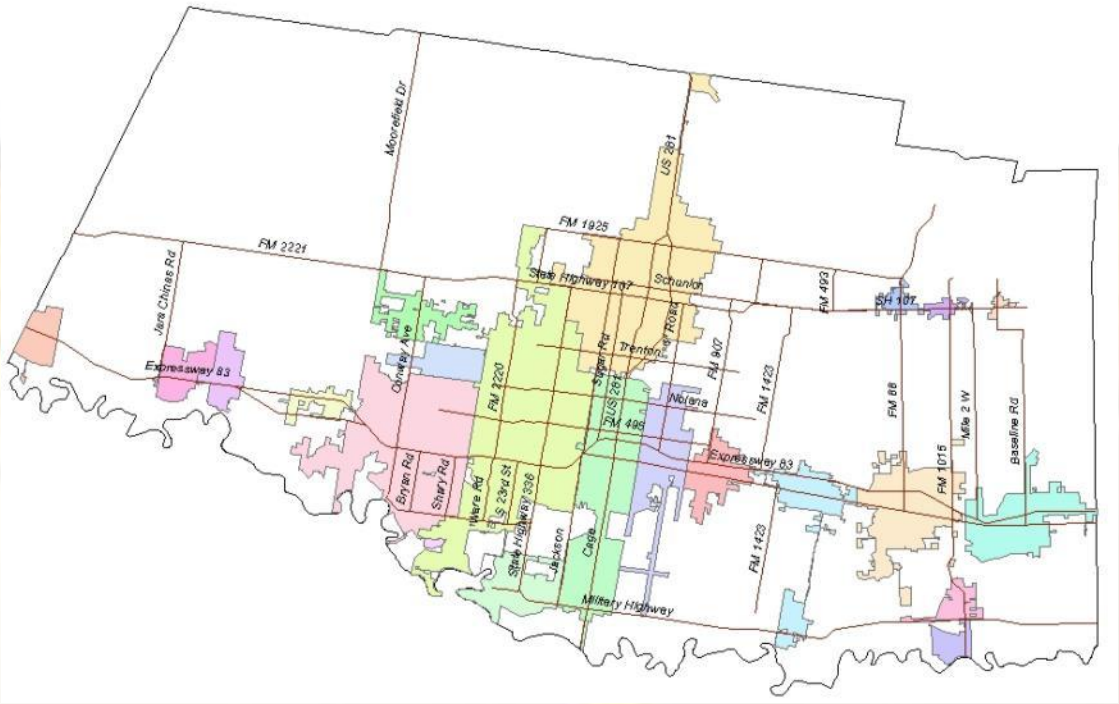
The Metropolitan Transportation Plan for the metropolitan area of Hidalgo County will continue to provide the maximum amount of mobility for residents and visitors within the urbanized portions of the county as well as recognize the importance of sufficient connections to destinations outside of the area, especially international connections to various cities around Mexico. The Metropolitan Transportation Plan and its subsequent implementation are and will remain sensitive to the impacts of the natural and historic/built environment that can result from construction and operation of transportation facilities and systems. The Plan will

support the goals of the United States Congress in showing fiscal constraint and the goals of safety, air quality, clean water, preservation of neighborhoods and cultural integrity. The plan will envision to degree possible, future conditions and provide for the realistic and affordable development of a transportation system that will allow people to have adequate mobility to achieve a full, well rounded lifestyle.

3.2 Goals and Objectives of this Plan

One of the strengths of the Hidalgo County MPO is the fact that the urbanized area consists of 22 individual cities plus the unincorporated area of Hidalgo County, all with distinct goals and needs for their areas. As demonstrated in the figure below, there are primarily two major transportation corridors that bisect and connect the cities. These corridors are two expressways in Hidalgo County one is U.S. 83 that runs east to west and U.S. 281 which runs north and south.

Figure 3.2.1: Major corridors throughout Hidalgo County



Considering limited funding and virtually unlimited need, construction projects must be developed and implemented for addressing the flow and demands of the entire corridor and in turn, the transportation network, while also addressing the individual needs of the cities.

The demands placed on the existing transportation facilities are exceeding the current capacity, and these demands are expected to increase in the future. The need to develop an improved transportation system (to deal with limited capacity and increasing growth through the year 2035) led to the development of several goals that comply with transportation legislation. Current goals of SAFETEA-LU preserve most aspects of ISTEA and TEA-21. However, certain important changes to the MPO planning process are required by law. After July 1, 2007, all new MTPs, TIPs and amendments to these documents must be compliant with SAFETEA-LU.

Upon the development of the 2010-2035 MTP, the goals and objectives of SAFETEA-LU were used to determine the development and implementation of the Hidalgo County Transportation Plan. On July 15, 2009, the life of SAFETEA-LU was extended for an additional eighteen months, running through March 2011. The recommendation for the 18-month extension of the surface transportation law at a cost of $20 billion, $18 billion for highways and $2 billion for transit — was done primarily to give lawmakers until after the 2010 midterm elections to reach agreement on a comprehensive reauthorization. The Act will authorize approximately $41 billion in FY 2010 and $20.5 billion for the first half of FY 2011, maintaining the current fiscal year's spending pace, excluding the stimulus package. The Metropolitan Transportation Plan for Hidalgo County will continue to steer via the foundation and vision set forth by SAFETEA-LU.

The following goals and objectives were used in the development of the MTP.

GOAL NUMBER 1: REHABILITATE AND PRESERVE THE EXISTING NETWORK.

A primary emphasis of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and the Transportation Equity Act for the 21st Century of 1998 (TEA21) is the preservation and maximum efficient usage of the existing transportation network. Maximum efficiency of the transportation system can only be attained through proper maintenance and thus, the following objectives have been set forth to achieve these goals.

Objective 1: Identify immediate problems and their solutions

Use of the existing management systems developed under ISTEA, which identifies immediate problems. The three management systems used are the Bridge Management System (B.M.S.), Pavement Management System (PMS), and Congestion Management Process (CMP). These systems are effectively in operation into 2009. The regional transportation model that is in its operational stages since 1999 will further allow the MPO to prioritize solutions efficiently and effectively once in place.

Objective 2: Increase the safety of the network.

Continuously conduct Incident Management System data collection within our Urbanized Area Boundary (UAB) and determine "hot spot" crash locations and other incidents. Work cooperatively and comprehensively with the Texas Department of Transportation and HCMPO member cities to provide awareness and assistance to reduce the number of incidents occurring in the county.

Objective 3: Improve efficiency of the existing network.

Using the existing Pavement Management System, and Bridge Management System, determine the rehabilitation cycles for the existing surface network and allocate MPO-TMA funding towards resurfacing and rehabilitating the regionally significant internal network of the cities. The Congestion Management Process analysis will help determine where transportation demand management tools such as; access management and traffic signal timing synchronization can be utilized most effectively.

Objective 4: Facilitate the efficient movement of freight

Support the development of the existing and proposed international crossings in Hidalgo County. Secondly, work with airports to provide sufficient land access to meet their future freight movement needs as well as continue to work with railroad companies to maintain a presence in the urbanized area.

Furthermore, determine if existing truck routes are sufficient to address projected truck borne freight to and through Hidalgo County.

Objective 5: Ensure Title VI[1]

Increase solicitation of public involvement throughout the urbanized area by continuing to employ innovate and effective awareness techniques. Public participation must be continuous involving citizens of the area. Also, technique should be implemented early enough to educate our young as they are tomorrow's leaders that will be working together with our local planning and community development departments.

Furthermore, the HCMPO must incorporate transportation investments into the big picture as a vision for tomorrow. This MTP objective must play an aggressive role in providing positive avenues for "welfare to work goals". Coordinate with area housing goals in utilization of public transportation and the development of public awareness strategies.

[1] **Title VI addresses the social environment of a project, the neighborhood, community, and equity in voice and construction standards.**

Implement the environmental resource plan and continue to administer energy conservation goals and objectives.

Objective 6: Serve existing and projected needs

Maintain or increase levels of service to the existing population and determine the projected growth and allocation amounts. Ensure that the MPO is eligible to study the transportation needs of that population.

Objective 7: Incorporate fiscal constraint/innovate financing

Fiscal constraint will be applied throughout the plan by investigating low cost alternatives to construction as a solution to the transportation problem. Research and implement innovative, non-traditional financing methodologies to fund the transportation network through the planning period.

Objective 8: Support and promote current economic levels

Work closely with the business community, chambers of commerce, and economic development authorities to determine their existing transportation, needs. Work with local municipalities and the Texas Department of Transportation to determine problem areas and to identify solutions.

GOAL NUMBER 2: EMPLOY A CORRIDOR ANALYSIS APPROACH TO CONSTRUCTION.

The linear development of the majority of the urbanized cities along US Expressway 83 combined with the rapid growth of cities and the county as a whole, exacerbates the need for the consistency of construction in corridor development.

Objective 1: Create a functional relationship between transportation planning and area development.

Educate community decision makers about the symbiotic relationship between land use, development, and the transportation network. Employ transportation demand management techniques (for example: light synchronization, raised medians, van pooling and curb-cut reduction) and access management to mitigate flow and safety problems on corridors throughout the urbanized area.

Objective 2: Ensure multi-modal capability

Study and incorporate where feasible and/or necessary all modes of transportation, including but not limited to transit, air, rail, pedestrian, and bike.

Objective 3: Ensure Efficient Movement of Freight

Support the development of the existing and proposed international crossings in Hidalgo County; collaborate with airports to provide sufficient land access to meet their future freight movement needs, while putting a special emphasis on NAFTA corridors. Work cooperatively with railroad companies to maintain a presence in the urbanized areas and coordinate discussions with local freight companies to determine if existing truck routes are sufficient to address increased truck borne freight to and through Hidalgo County.

Objective 4: Protect the environment

Work closely with the Texas Natural Resources Conservation Commission, Texas Parks and Wildlife, and local conservation organizations to determine environmentally sensitive areas and incorporate their input into the construction process. Where possible the MPO will plan for the transportation corridor with the least environmental impact.

Objective 5: Promote and Ensure Compliance of Title VI (EJ) [2]

Increase solicitation of public involvement throughout the urbanized area by continuing to employ innovative and effective awareness techniques and work with the local planning and community development departments to incorporate transportation investments into the big picture. The HCMPO must take an aggressive role in providing public awareness strategies regarding welfare to work goals as well as conduct coordination regarding area housing goals and strategies relating to public transportation and its usage. Utilization of an environmentally friendly resource plan and to implement energy conservation goals and objectives is also important to the Hidalgo County MPO.

Objective 6: Serve existing and projected future needs

Maintain current or increased levels of service to the existing population and determine the projected growth and allocation amounts. Ensure that the MPO is given the opportunity to study the transportation needs of that population and assure the most needed corridors are given the highest priority rating for service.

Objective 7: Incorporate Fiscal constraint/ innovative financing

Fiscal constraint will be applied throughout the Metropolitan Transportation Plan by investigating low-cost alternatives to construction as a solution to the transportation problem. Research and implement the Hidalgo County MPO's CMP to a corridor level

[2] **Title VI addresses the social environment of a project, the neighborhood, community, and equity in voice and construction standards.**

approach and continuously seek innovative, non-traditional financing methodologies to fund the transportation network through the planning period.

Objective 8: Promote Economic Development

Work closely with the business community, chambers of commerce, and economic development authorities to determine existing transportation needs and problems and TxDOT to identify solutions. The MPO should continue its policy of connecting any new bridge with the existing transportation networks already in place.

3.3 Plan Alternatives

The relationship between land use and transportation often has been described in a cause and effect context. If you provide access to undeveloped land, it will soon be developed into that particular urban form. Light rail or transit line encourages certain density patterns. Land use decisions in Texas are made by the individual cities, while the Hidalgo County MPO and TxDOT make transportation decisions. In an area as diverse as the Rio Grande Valley, people as well as governing entities do not all share the same vision for the area's development.

An open and fair planning process is essential before consensus of the expected quality of life for all residents of the Hidalgo County Metropolitan area can be reached. The maturing alternatives will be mentioned in this plan update for continuous discussion purposes. The four alternative scenarios still need further debate before consensus can be reached in this plan update. A brief description of the four alternatives will open the discussion on land use, which will be further refined in the 2009 plan.

The No Build Alternative

The No Build alternative represents the continuation of the current trends in transportation and land use. In this alternative we hold system capacity at current levels, the land use follows the current zoning patterns and our population is loaded on our current regional transportation infrastructure. The purpose of the No Build scenario is to establish future baseline conditions for Hidalgo County. By reaching a consensus that this scenario is unacceptable we have begun to establish a common reference for identifying the issues of mobility for the 2009 Plan. The expectation of this scenario is a massive increase in congestion and an excessive burdening of our transportation infrastructure. Establishing future baseline conditions will help determine projects in the selection process that have the greatest impact for our existing network.

Complete Thoroughfare Plan – Classic Grid

The goal of the County Thoroughfare Plan is to consolidate the thoroughfare plans of each city, creating a unified hierarchy of functional classification. The final product will be a thoroughfare report consisting of a plan map that illustrates the general location and preserved right-of-way status for roadway facilities within the Metropolitan Area Boundary of Hidalgo County. The current County Thoroughfare Plan consists of ten categories representing a specified amount of right-of-way (ROW): existing collectors (80' of ROW), existing minor arterials (100'), existing principal arterials (120'), existing high speed principal arterials (150'), and expressways (350'), as well as their proposed counterparts. As Hidalgo County continues to grow at a rapid rate, it is vital to have tools in place to preserve the existing transportation infrastructure while allowing the opportunity to obtain land for future roads. The County Thoroughfare Plan serves this function.

Compact City Development

The idea of the compact city has gained favor as new urban design ideas become more popular across the country. As sustainability and environmental protection become a present agenda in transportation and land use planning, the idea of "going green" becomes more prominent. However, lax regulation in zoning continues to allow low density sprawl to occur. The present urban development pattern of Hidalgo County coincides with what is seen in other metropolitan areas in Texas. Predictions for these referenced cities state that the cost of maintenance of these vast transportation networks will one day outweigh the cost of creating new roads.

Major components of the compact city approach to land use include the development of the Metropolitan Bicycle Plan and the increasing request for sidewalks in all our cities. However, while residents would prefer certain amenities representative of a compact city approach such as transit, sidewalks, and bike paths, they still desire suburban housing reflective of low density urban growth patterns.

The challenge of future transportation planners in Hidalgo County will be balancing the growth of the county with the transportation and land use infrastructure. The idea of the compact city will only be achieved if initiatives towards a higher density urban form supported by sufficient public and private transportation systems are pushed forward

4.0 Metropolitan Area Plan Elements

This section of the Metropolitan Plan update is to ensure that the transportation planning efforts of the various governmental entities in Hidalgo County continue to be compatible across all modes of transportation and each other. Each Element of Chapter Four will cover an alternative mode to meet the comprehensive requirements of SAFETEA-LU.

4.1 Plan Compatibility

As stated in Chapter 1, transportation planning is a continuous process. In reality, this update is just a snapshot of current trends and directions. In the planning process, it is necessary to have a vision of the goal we are trying to attain. However, it is equally important to remember that with an area as dynamic as the Rio Grande Valley, there will be constant changes to the vision as priorities and needs of our citizens adjust with time. The Hidalgo County MPO maintains its database of modifications to the Plan and strives to keep current and compliant with Federal Laws mandated for this Plan and its updates.

The Hidalgo County MPO ensures compliance with the current transportation bill, SAFETEA-LU and will continue to do so until a new bill is implemented. Under the Obama administration, and direction from Secretary of Transportation, LaHood, an extension to SAFETEA-LU has been given.

To guide the development of our Transportation System over the next 25 years, this plan contains policies designed to maintain consistency among the various modes in the MTP. Since the Hidalgo County MPO **DOES NOT PLAN IN A VACUUM** but in an environment of many partners, this MTP must be compatible with at least six other documents, which are described below.

4.1A Ensure Compatibility with FY 2008-FY 2011 TIP

Since the TIP is the implementation tool of this plan, it is critically important that the criteria for ranking projects be compatible. This means the two different selection criteria must be similar enough so that the same goals are met in both. The TIP criterion is used to select the projects to be implemented from the twenty-year list that makes up the MTP. For example, pavement condition is not part of the MTP selection criteria, but it is part of four year TIP selection criteria, so the pavement condition makes a difference when selecting between two freight projects from the twenty-five year plan to be put into the TIP. Another way we ensure compatibility between the TIP and MTP is our policy on Right-of-way (ROW) issues. Before a project is considered for inclusion in the TIP, it must have at

least 100% of the needed ROW acquired. A project then can score between 0 and 15 points depending on what percentage of ROW between 75% and 100% is acquired. (For a more detailed discussion on how ROW preservation is handled please refer to Section 4.) Any projects currently in the FY 2008 to FY 2011 TIP are given an MTP score or an automatic 100 points. Federal Law requires that the region reexamine its priorities every five years in the Metropolitan Transportation Plan (MTP), and as a result, the first year to be impacted by the update of this MTP will be 2012.

4.1B Ensure Compatibility with FY 2009-FY 2019 UTP

Another document the Hidalgo County Metropolitan Transportation Plan must be compatible with is called the "Unified Transportation Plan" (UTP) assembled by the Texas Department of Transportation (TxDOT). The current UTP covers Fiscal Years 2009 thru 2019 which as of yet doesn't have a specific funding amount determined. The UTP is TxDOTs ten-year plan for developing projects that will compete statewide for Texas National Highway System funds. Since those projects are developed along the National Highway System (NHS), the Metropolitan area's most important arterials are included in the plan. There is little argument that US 83 and US 281 are the backbone of the HCMPO's transportation network. Since the MTP has 25 years worth of projects and the UTP has only 10, the HCMPO assumes that the projects included in the UTP are also included in the MTP.

4.1C Ensure Compatibility with Hidalgo County Thoroughfare Plan

In 1996, the Hidalgo County MPO adopted the County Thoroughfare Plan (CTP) to establish uniform design standards for roadways throughout the county. The CTP was last amended in 2003 and is being updated with the most current changes implemented by end of 2009. The additional bridges being constructed in our area has brought about changes in our infrastructure to accommodate the increased traffic forecast. The goal of the County Thoroughfare Plan is to consolidate the thoroughfare plans of each city, creating a unified hierarchy of functional classification for highways and roads. The final product will be a thoroughfare report consisting of a plan map that illustrates the general location and preserved right of way status for roadway facilities within the Metropolitan Area Boundary of Hidalgo County. This plan is used to preserve continuity of the thoroughfares when they cross over jurisdictional city boundaries, ensuring compatibility between the cities at the county level. This document is used to set the standard Right- Of- Way (ROW) needed to enforce our ROW Policy, a valuable tool that can be utilized by local municipalities to protect their ROW's.

4.1D Ensure Compatibility with TxDOT State Plan

The state transportation plan, like most large statewide plans, is a policy driven plan. The State of Texas has committed funding to the Border regions in unprecedented amounts of funding since the passage of NAFTA in 1994. This is the direct result of Texas's policy to concentrate on Border Infrastructure. Other statewide policies in this plan are toll projects as revenue generating projects and limiting new frontage roads. By Coordinating very closely with TxDOT-Austin, we are able to maintain compatibility with the state transportation plan. By staff participation in various studies that are funded out of the state plan, the MPO is able to ensure the Valley's interests are heard. It is important to remember that Texas is a big state with many interests, and we may not always get our way, but it is important to maintain a presence in the state capitol of Austin.

4.1E Ensure Compatibility with TMMP

The TMMP is intended to be a framework for addressing unmet transportation needs in metropolitan areas. The TMMP requires the eight transportation management areas (TMAs) in Texas to develop a comprehensive, locally developed, visionary, realistic, and financially unconstrained plan to reduce Congestion and improve mobility.

Many of the goals of the MTP and the TMMP are related in that they are both long-range documents that seek to address transportation need (be it in a financially constrained (MTP) or unconstrained environment (TMMP)). They are also complementary in that:

- The TMMP can serve as an analysis tool for the MTP. The TMMP allows for a quantitative analysis of transportation need beyond the limitations of financial constraint. The "all or nothing" analysis allows the MPO not only to show additional unmet need that a fiscally constrained plan would not show; it also allows the MPO to show the benefits of addressing those unmet needs. The benefits could be, but not exclusive of, improved mobility, an improved congestion index number, increased economic development opportunities, improved air quality, and improved quality of life.

- The TMMP can serve as a means to simulate public dialogue on the direction of an MTP and its policies, goals, and strategies. The TMMP provides this opportunity by serving as a quasi-visioning tool. The "all or nothing" scenario will reveal network deficiencies that may need to be addressed. This is a starting point for elected officials and the public to discuss what strategies make sense in a given corridor,

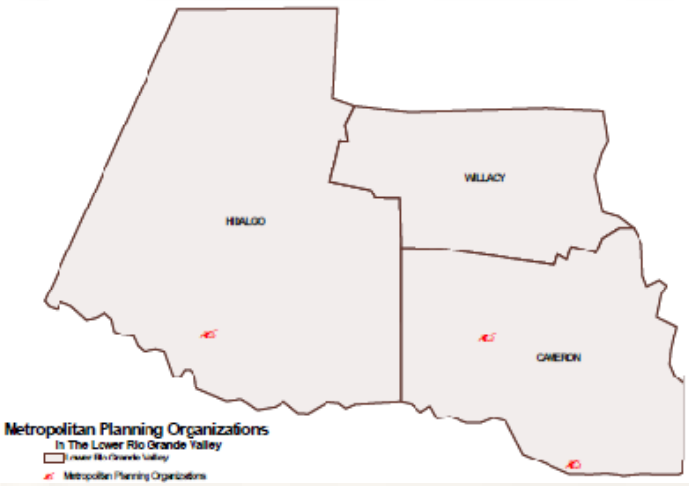
given expected population and land use changes. It can be another way to show the public that an MTP is not written in stone, and that their input can make a difference in how transportation strategies for a particular corridor are developed over time.

• The TMMP can also be a tool to assist in the development of goals, objectives and strategies in the MTP. The "all or nothing" scenario will reveal deficiencies, and it can also serve as a starting point for exploring what options might work in a given corridor.

The needs-based plan is essentially an analytical subset of the traditional long-range transportation planning process. The TMMP is innovative in that it allows MPOs to examine transportation needs beyond the fiscal constraint barrier. The inclusion of the TMMP concepts and goals in the long range planning process is a quantum step forward for Texas MPOs. The TMMP will allow Texas MPOs to examine unmet needs for the first time and perhaps will allow us to get ahead of the game instead of always running to catch up.

4.1F Ensure Compatibility with Other Regional Plans

In TxDOT's Pharr District, there are three MPOs and one Council of Governments that operate within the district boundaries. The Brownsville MPO, Harlingen-San Benito MPO and the Hidalgo County MPO all have their own planning documents but are coordinated by TxDOT district staff. Occasionally, the three MPOs will work together and coordinate as transportation planning partners. As the population of the Rio Grande Valley continues to grow, and the increased need for transportation infrastructure becomes more pressing, it is important for cooperation between the MPOs in order to make the necessary improvements to the region more seamless and beneficial to all.



4.2 Roadway Element – MTP Elements

This section of the Metropolitan Transportation Plan is to ensure that the transportation planning efforts of the various governmental entities in Hidalgo County continue to be compatible across all modes and each other. Each Element of Chapter Four covers an

alternative mode to meet the comprehensive requirements of TEA-21. The information below is intended to meet the historically dominant mode of transportation in the USA, the private auto.

4.2A Introduction

Since the TEA21 legislation, it became apparent that the trend of automobile-friendly policy was coming to an end. Funding sources are now more than ever being awarded to non-automobile solutions for mobility. As gas prices continue to fluctuate, the single occupancy vehicle is the least favored mode in terms of funding. From 2005-2009, SAFETEA-LU was the source of legislation for transportation programs for highways, highway safety, and transit. As we approach the expiration of the current transportation act, the direction of focus for transportation programs will likely continue to head towards one of environmentally friendly and sustainable importance.

Factors considered while developing the recommended roadway networks include the impact of transportation planning on land use, environment and neighborhoods, fiscal constraint, air quality issues, and connectivity within and between the Valley's metropolitan areas including connectivity with Mexico. It was determined that right-of-way preservation and standardization or traffic engineering are key components to transportation plans in the Valley. The County Thoroughfare Plan should be used as a guide to preserving Right-of-Way (ROW) throughout the county.

Also considered, were projects contained in the MPO's TIP, the State of Texas's Ten Year Unified Transportation Program (UTP). Projects from this document are selected by TxDOT.

4.2B Access Management

Access to the existing transportation structure is important in Hidalgo County as the area continues to grow and new roadways are built. In September of 2003, the Texas Department of Transportation (TxDOT) adopted new rules on access management, allowing TxDOT to apply access management on all state owned roads. This prompted the creation of the Access Management Plan in April of 2005. Access Management is a set of strategies designed to make best use of existing transportation facilities as well as enhancing transportation improvements.

Access management involves the systematic location, spacing and design of driveways, median openings, and street connections to the public roadway system. It also involves

roadway design applications, such as median treatments and auxiliary lanes, and the appropriate spacing of traffic signals. The purpose of access management is to provide vehicular access to land development in a manner that preserves the safety and efficiency of the transportation system.

Integrating access management into the HCMPO planning process begins with defining the approach that is best suited for the area. Three alternatives are examined as strategies, and are assessed as the following:

- Basic – using existing resources that are relatively common and readily available to alter the project selection process.
- Enhanced – applying strategies from similar successful project selection processes and adding resources to the basic services.
- Aggressive – moving beyond current experiences from around the country to create a new project selection

The Basic level plan, while doing little to promote compatibility between the transportation system and land use development, is capable of being implemented in a short time frame. The Enhanced level plan involves the creation and implementation of a model land development code, such a code would be recommended in the MPO's Metropolitan Transportation Plan and would create a relationship between transportation decisions and land use policy. The last level is the Aggressive Plan. This alternative provides a framework that facilitates predictable development, where a community can weigh development decisions against its stated vision of the future.

4.2C Functional Classification

The Roadway Element of the Metropolitan Transportation Plan for Hidalgo County is based on a system of functionally classified roadways. These classifications are intended to reflect the role or function of each roadway within the overall thoroughfare system.

The functional classifications describe each roadway's role and reflect a set of characteristics common to all roadways within each classification. Functions range from providing mobility for through traffic and major traffic flows to providing access to specific properties. Characteristics unique to each classification include degree of continuity, general capacity, and traffic control characteristics.

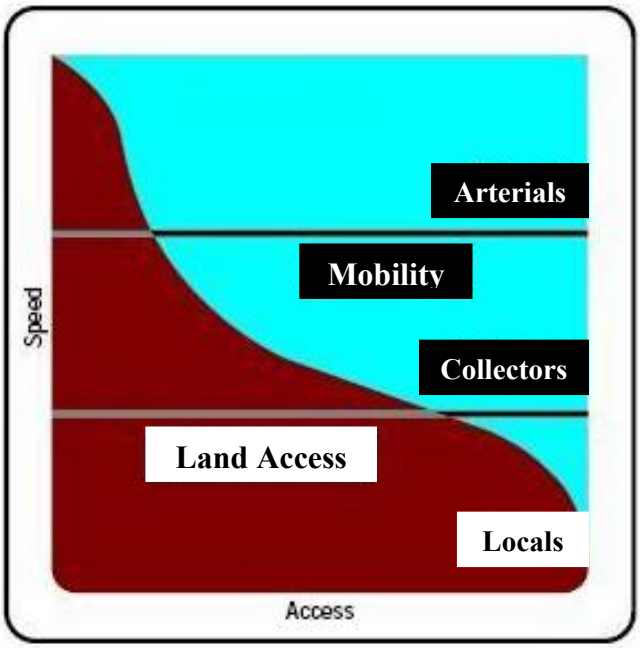
Design standards describe the generalized characteristics of each functional classification. These characteristics are necessary to ensure that roadways will serve their intended functions without resulting in diversion of traffic to or from these facilities. Maintaining these characteristics allows the roadways to operate as intended, with maximum efficiency and safety.

Functional classifications for roadways are needed to provide an underlying basis for determining the following:

- Design degree of continuity
- Level of capacity
- Strategies for traffic control
- Design speed
- Geometric characteristics
- Other design characteristics
- Access Management Policies
- Development criteria (setback ordinances, etc.)

Figure 4.2.1, on the next page, illustrates the inverse relationship between access and speed. Road facilities that provide higher speeds and greater free-flow usually do so at the expense of accessibility. For example, freeways perform the function of moving large traffic volumes at high speeds, and arterials serve both through movement and access to retail and employment centers. On the lower end of the spectrum, the local streets have high property access functions and very low carrying capacity and speed.

Figure 4.2.1: Relationship between Access and Speed



In order to be assigned proper functionality, not only must streets be designed to provide adequately for the desired function, but must also appear to be appropriate for the role. Arterial streets typically have four or more lanes, medians, turn lanes at intersections, wider right-of-way, and higher design speeds, which give them priority at intersections with lower class streets. Local streets usually have one or two lanes with low design speeds and restricted right-of-way, which tends to limit through movement. The functional classification system provides a basis for applying these characteristics to the roadway system.

The MTP strives to improve the movement function of the higher-level streets while maintaining the access function of the lower level facilities. The following list describes levels of classifications:

Freeways – Through their fully grade-separated design, freeways have high speeds, high carrying capacities, and limited access. Access is limited to interchanges and ramps, which connect to frontage roads. The frontage roads serve the access-to-property function. Access points are limited to major facility crossings.

Expressway (High Speed Arterial) – Similar to Freeways, Expressways are high capacity roadways with a predominately high speed through flow. Intersections are

at-grade and are usually limited to major arterials. There is little or no access to adjacent developments or local streets. Left turns are usually prohibited. Street crossing between intersections are accomplished by grade-separated crossovers, which do not interchange with the expressway.

Principal Divided Arterials – These arterials usually serve a little more through movement than property access. They are high capacity roadways that connect lower level arterials and collector streets to the regional roadway system (freeways and expressways). Their intersections are usually only with higher capacity cross streets. Divided Arterials have a median that prevents left turn movements except at intersection. Their spacing is usually 1 to 3 miles.

Principal Undivided Arterials – These facilities are very similar in carrying capacity, spacing, and function to the Divided Arterials, but do not have a median. Therefore, they do not restrict left turning movements into adjacent properties. Lack of sufficient ROW and/or long-standing property access right is usually why they have been designed this way. Many have a continuous center left turn lane or left turn bays at intersections.

Minor Arterials – Minor Arterials have a higher property access function and a lesser through movement function than Principal Arterials. They generally serve smaller geographic areas than Principal Arterials, and spacing is usually one mile. Typically, full access (left and right turns) to adjacent properties is permitted.

Collector Streets – Collector streets connect the local street system to the arterial street system, hence they "collect" traffic. Spacing is usually one mile or less. They provide access to residential areas as well as commercial/industrial areas.

Local Streets – Local streets have the highest access and form the base element of the street system. Local streets access residential areas and are usually no more than 0.5 miles in length. They intersect with other local streets to create a gridlock "block" system, and are connected to the arterial street system by collectors. This category includes all roads that do not receive a higher classification.

One important funding consideration is the Federal Aid Functional classification. In order to qualify for federal funds, a street must be classified as a collector or above.

4.2D Pavement Management System

In ISTEA of 1991, the Federal Government required all MPOs to develop a Pavement Management System (PMS). In TEA21 of 1998, the Federal Government dropped the requirement for a Pavement Management System, but still required MPOs to plan for the preservation of existing transportation facilities and, where practical, ways to meet transportation needs by using existing transportation facilities more efficiently. As dictated by federal law, the Hidalgo County MPO has been addressing system preservation through the implementation of the PMS. Through the use of the PMS, the MPO effectively evaluates projects for selection into the TIP and pavement rehabilitation is more efficiently implemented.

Since 1996, the Hidalgo County MPO has had a fully operational Pavement Management System. Fortunately, the capability has not been needed, but the system can show the impact a disaster such as a hurricane or terrorist activity would have on our normal rehabilitation budget and maintenance schedule. The Hidalgo County MPO still has the flexibility to get more involved in operations if Congress decides it wants the MPO to do so.

Definition of Pavement Management System

The Federal Highway Administration's definition of a Pavement Management System (PMS) is described as *"a systematic process that provides information on roadway system conditions and alternative strategies to promote facility rehabilitation and enhance the mobility of persons, goods, and freight. A PMS includes methods to monitor and evaluate performance, identify alternative actions, assess and implement cost-effective actions, and evaluate the effectiveness of implemented actions."* Our PMS is a combination of measures that monitor, forecast, and analyze system conditions. The System is a continuing, cooperative, and coordinated effort to consider and implement actions to maintain system wide quality in the Hidalgo County MPO area.

The PMS is a part of the MPO's larger role in transportation planning. The PMS recommendations should be incorporated in future MTP and TIP documents. Pavement Management elements are:

- Identification of substandard roadways
- Identification of agency responsibility
- Identification of roadway condition measures
- Continuous monitoring process

- Development of an evaluation process that accounts for transportation facility use changes

Pavement Performance Standards

The State of Texas has set a PCI of 65 as the minimum acceptable standard for pavement conditions on the on-system roads. The cities and county of the MPO have agreed to accept pavement PCI as low as 55. When projects are selected, the TIP points are awarded for certain percentage of those standards from 0 to 15 depending on how substandard the pavement is.

By tracking various inputs such as truck traffic, Average Daily Traffic (ADT), maintenance done, and land use changes, MPO staff is able to "AGE" the pavement depending the various budget policies.

Future of the Pavement Management System

Staff has continued to work diligently in house to gather data on pavement conditions. It is the intent of the MPO to conduct another update in the near future. The MPO will collect an inventory of Pavement conditions from each city in the region and compile all roadway conditions into one database. An existing updated inventory will provide the MPO along with city planners an opportunity to observe current pavement conditions of existing roadways. In addition, continual updates can provide data for longitudinal studies, allowing the MPO to evaluate which facilities have degraded overtime.

4.2E Right of Way Preservation

The acquisition of Right-of-Way (ROW) has been a major limiting factor in the process of adding needed capacity. It is agreed that ease of ROW should have no weight in considering long-range projects. However, the process of acquiring ROW is time consuming and is best completed far in advance of the project selection process. In many cases in the past, not all of the parcels have been acquired and the project schedules were delayed.

In order to prevent any delays, the MPO has used a two-pronged approach to expedite the construction of the MPO projects. The first step was to adopt a County Thoroughfare Plan in 1996. This Plan was the first step in requiring uniform ROW standards for the same class of roadway. The plan has been amended several times since and the latest map can be

found in the appendix. The last time the Thoroughfare Plan was officially amended was in December 2003.

The second step was when the Hidalgo County MPO adopted the MTP on December 16, 1999. In that Document the MPO adopted the **Policy 4.2E**, *"Implement a Policy requiring a minimum acquisition of 75% of necessary ROW before a project can be included into the TIP."* That means if the project does not have at least 75% of the necessary ROW acquired, it is not included in the TIP. In 2004 – 2006, the MPO took this one step further in ranking projects for the TIP in Category 7. In the MPO's TIP criteria, a project receives 0 points for the minimum 75% acquired. If a project already has 100% of the ROW acquired, it receives a maximum of 15 points in the TIP project selection process. There is a table developed for ranges 76% to 80%, 81% to 90%, and so on.

For the FY 2008-2011 TIP, five criteria were adopted (as of January 27, 2005) to select projects. Three of these criteria emphasize the importance of Right-of-Way acquisition and preservation. Criterion 3 states that projects under consideration must have 100% of Right-of-Way in place. Criterion 4 states that projects needing Right-of-Way acquisition will be labeled **Develop Authority** to be considered for addition to the TIP upon completion of environmental studies and Right-of-Way acquisition. Criterion 5 observes that projects having completed Right-of-Way acquisition and environmental studies will be considered based on traffic volumes for inclusion in the TIP.

4.3 Public Transportation Element

4.3A Background

Public transit is in the process of evolving with the rest of Hidalgo County as it transitions from the rural county of thirty years ago to the increasingly urbanized area of today. Public transit had its beginnings in the region in the late 1960s when the Lower Rio Grande Valley Development Council (LRGVDC) began providing basic rural transit service for the county. However, the level of transit service did not keep pace with the growth of the county and by the mid-1990s; the McAllen-Edinburg-urban area was one of the few urban areas in the State of Texas that did not have a municipal or regional transit system.

In 1995, the Hidalgo County Metropolitan Planning Organization (MPO) conducted a "Higher Education Transit Study". In response to the results of this study and interest from local business leaders to investigate transit shuttle services to promote regional mobility and enhance retail shopping opportunities, the MPO conducted the "Transit System Feasibility Study and Implementation Plan for the Cities of McAllen and Edinburg" in 1996. The study had positive results, and the McAllen Express was implemented within a year of the feasibility study's conclusion. The City of McAllen purchased vehicles and implemented a six-route transit system. Service was designed to provide access to the low income/transit-dependent populations. Within the first year of operation, the five-year ridership projection was met.

The feasibility study also recommended a seamless transit system between the cities of Edinburg and McAllen and studying the feasibility of implementing transit systems in the remainder of Hidalgo County. In 1997, the MPO finished "The Transit System Feasibility Study and Implementation Plan for Hidalgo County" Phase II. In December 1999, transit service began on the Rio Metro, administered through the LRGVDC, which provides limited transit service to the cities of Edinburg, Mission, Pharr, San Juan, Alamo, Mission, Mercedes, Weslaco, and Donna and connections to the McAllen Express. Since 2005, McAllen Express became McAllen Express Transit (MET) and has been operated as a Department of the City of McAllen. The first full year of operation was in 1998, and the ridership recorded for that year was 201,506 passenger trips. In 2008 McAllen Express Transit accomplished record high numbers in ridership. Ridership in 2008 totaled 412,151 passenger trips, accounting for more than two times the ridership recorded in 1998. MET now has seven fixed routes serving residents and visitors of McAllen. The LRGVDC still provides rural service to Hidalgo County, and Cameron County, through Rio Transit, which consists of five routes providing limited demand service.

The final piece of the existing transit system is the result of a study commissioned by the City of McAllen and the MPO to locate and design a downtown intermodal transit facility. The McAllen Downtown Terminal, Central Station, opened in 2001 and serves as a HUB by providing transfer

connections between McAllen Express Transit and Rio Metro routes, as well as 14 private domestic and international bus lines (Greyhound, VTC, Tornado, Adame, El Expreso, Noreste, Turimex, Transpais, Americanos, ADO, Sendor, Omnibus de Mexico). Approximately 60 buses depart from Central Station on a daily basis. Private bus companies lease space within the bus terminal to offset the city's operating expenditures for the bus terminal facility. Central Station also hosts 2 million visitors per year. The transit terminal provides additional passenger convenience and educational opportunities as passengers from the private regional carriers can learn the local transit systems that are available to transport them to numerous local and regional destinations. Central Station has been the first successful terminal of its kind in the region and has become a model facility for many transit agencies.

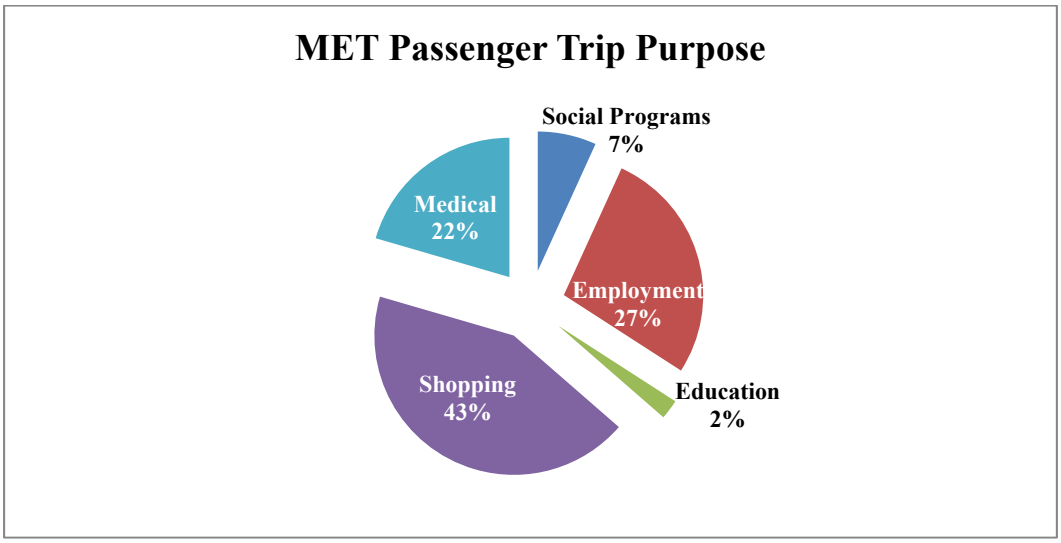
4.3B Transit Survey Summary

The purpose of this summary is to enumerate significant elements that emerge from the rider surveys conducted by staff on the McAllen Express Transit (MET), Rio Transit and Rio Metro systems. Questions of interest include how people feel about the system, what types of riders the system is carrying and what trip purposes are being fulfilled on the systems.

McAllen Express Transit –MET

Surveying the passengers regularly is critical to McAllen Express Transit's quality measurements to ensure great customer service. In 2007, a survey was conducted on Route 7, the Job Access Reverse Commute (JARC) route, which travels North and South on the Eastern side of McAllen. Respondents indicated how they became aware of the service, their trip origin and purpose, frequency of ridership, and if service provided fulfilled their needs. Survey results indicated that a great percentage of ridership on the JARC route was for job access.

Figure 4.3.1: MET Passenger Trip Purpose



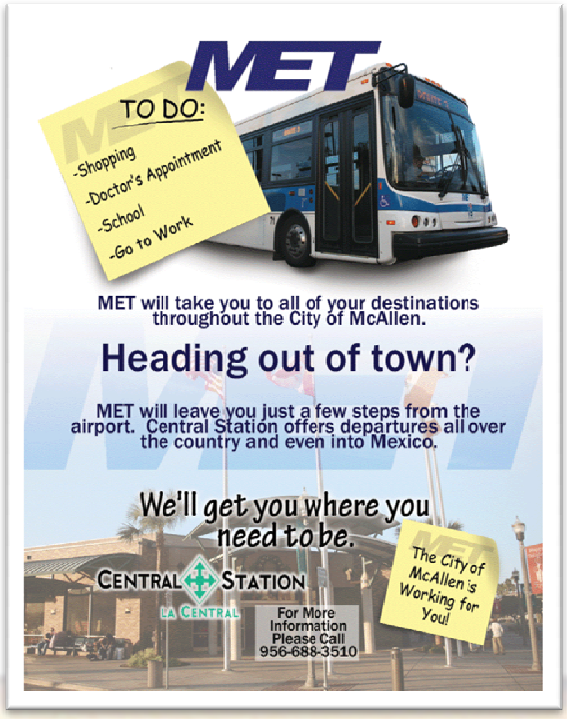
Other surveys taken on all the McAllen Express Transit indicate that almost half the respondents utilize the service for shopping. Although shopping destinations are located throughout McAllen, approximately 26% of total ridership occurs on Route 4 which travels to the two largest shopping destinations, La Plaza Mall and Las Tiendas Shopping Center located in southeast McAllen. Employment (27.3%), medical trips (20.5%), education (2.3%), and social programs (6.8%) account for the other major trips.

The McAllen Express Transit surveys do not ask respondents for information about themselves. Therefore, no demographic data is available indicating factors such as passenger's age and income level. Nonetheless, McAllen Express Transit drivers conduct passenger surveys based on the following categories; Adults, Students, Elderly (60+), Children (under 7).

Written comments by users of the seven McAllen Express Transit routes indicate that they appreciate the transit services and are content with the service provided (94.4%). Most frequent comments praised the drivers, the service and the system in general (23.3%). The benefit of the system to some users was clear by comments like "Can't drive, it is great to have this service", "Without bus I wouldn't be able to go to work" and "system a blessing, I don't have transportation other than this". Although compliments are encouraged there is always a way to improve. Complaints and suggestions for improvements were also asked from passengers. Complaints included service taking too long (20%), a need to repair the air conditioning on needed vehicles (46.7%), improve brochures by making them rider

friendly (6.7%), and increase payment options on the route (3.3%). McAllen Express Transit has already implemented solutions to these customer complaints.

Passengers have also been surveyed on expansions of the current system. Almost 80% of the respondents said they would utilize the system if the hours of operation are extended to 10 p.m. and operate on Sundays. Some suggestions were given for route extensions and alterations. In summarizing the surveys mentioned above, the respondents indicated the need of placing more stops, having more shelters in specific areas, and extending routes to expand the service area.



The summary of the surveys taken regarding McAllen Express Transit service was taken by the question if passengers needs are adequately being met, the reply was positive by 95% in agreement.

Rio Metro

Rio Metro had fewer surveys that were available for summarizing. Thirty-four surveys were examined, most from 2002.

The Rio Metro survey questionnaires did not ask respondents the purpose for their trip or information about themselves. Therefore, no demographic data is available indicating things like rider's age and income level, and no indication of the rider's destinations is available. The most frequent comments requested service on additional days, 13 for weekdays and 5 for Saturdays. The next most frequent comments were about the system and service. Eight people found it convenient, seven indicated they like the system, and six said it was great service. Six people commented on the affordability of the service, and a couple of them even indicated they would be willing to pay up to $.50 more per trip if additional days of service could be provided. In fact several riders, two of them students, requested additional days of service, and several others requested service changes. A couple of comments cited problems with drivers regarding stops and travel speed. One indicated that the printed schedule is confusing.

Rio Transit

Fifty-two surveys were available for the Rio Transit system dating from 2002. The surveys indicated that most people use the service weekly (33) or daily (10).

The majority of the trips originate in small rural areas and the passenger's destinations are usually large shopping areas. The most frequent trip purpose was shopping (36), closely followed by medical (33). All other trip purposes had fewer than ten respondents and included social services (9), educational (5), employment (5), visit family (4) and other (7).

The overwhelming use of the service is by persons with low income and senior citizens. Eighty-five percent of the respondents (44) had an income of less than $6,000 per year, and all but two indicated an income below $10,000 per year. Almost 60% of the riders (30) are over 55 years of age. An additional 25% (13) fall in the 31-55 age category.

The riders overwhelmingly feel good about the system. Almost 100% checked boxes indicating that the fare is reasonable and that the drivers perform their duties in a satisfactory manner. Eleven passengers commented that the service meets their needs. However, despite feeling good about the service being offered, over 70% of the riders surveyed requested improvements, particularly additional days of service. Ten riders requested weekend service, mostly on Saturday. Service on additional weekdays was important to 25 respondents.

4.3C Existing Conditions

Organizational Structure and Description of Services Provided

The LRGVDC is a regional planning and development council, established pursuant to state legislation, that provides numerous planning and community services in Hidalgo, Willacy, and Cameron Counties. The Council has 83 voting members consisting of county and city governments, schools, special purpose districts, and community organizations. The three-county region has a land area over 3,000 square miles and a population of over 1,070,000. The region includes the McAllen-Pharr-Edinburg urbanized area that has a population in excess of 685,000.

The Texas Department of Transportation (TxDOT) designated LRGVDC as an urban and rural transit district. The LRGVDC is the designated recipient of FTA Section 5307 transit funds for the McAllen-Pharr-Edinburg urbanized area. TxDOT allocates Section 5307 funds to the LRGVDC from the Governor's apportionment for the Harlingen-San Benito urbanized

area. The LRGVDC receives FTA Section 5310 and 5311 funds and state transportation funds from TxDOT in support of elderly and disabled and rural transportation services.

The LRGVDC's 26-member board of directors, elected to represent the 83 voting members, acts as the policy body for transit services it funds. The Executive Director is the chief executive officer. The LRGVDC's Transportation Director and the transportation staff administer all transit programs, and oversee contracts with private operators for the operation and maintenance of transit services.

In urban areas, the LRGVDC enters into intergovernmental agreements with the local governments within its region to define transit services and to provide for the local share of operating and capital costs. The LRGVDC revised its intergovernmental agreement with the City of McAllen to permit the City to act as project manager for the construction and operation of the intermodal bus terminal, which was opened to the public in January 2001. The City also acts as project manager for the purchase and installation of bus shelters within the city limits. The LRGVDC uses state, federal, and local in-kind staff charges to fund transit services in rural areas.

The LRGVDC administers the McAllen Express Transit and Rio Metro transit services within the McAllen-Pharr-Edinburg urbanized area. The LRGVDC subcontracts with the City of McAllen to operate the McAllen Express. The LRGVDC also coordinates Rio Metro, a deviated fixed route paratransit service to eighteen cities within the McAllen-Pharr-Edinburg, urbanized area. Four routes provide service from Monday through Friday from approximately 8 a.m. to 6 p.m. Fares are $2.50 for adults, with discounts for the elderly, Medicare recipients, the disabled, students, and veterans. An additional route utilizing two buses serves Hidalgo County along Highway 107 and Business 83 for six days out of the week. Fares for this route are graduated based on pickup and destination zones.

Harlingen Express is also overseen by the LRGVDC and operates two routes within the Harlingen city limits. Service hours are Monday through Saturday from 6 a.m. to 6:30 p.m. Fares are $3.00 with a half fare available for seniors. Medicare recipients, disabled, and students and veterans are all eligible for discounts.

The LRGVDC operates a rural deviated fixed route and demand response services funded by TxDOT through the Section 5311 program. This service operates in eastern Hidalgo County on Mondays, Wednesdays, and Fridays from 8 a.m. to 4 p.m., and in eastern Cameron County six days of the week (except Sunday) from 5:30 a.m. to 7 p.m. A one-way

fare is $1 and $2 respectively, with discounts for seniors, the disabled, students, Medicare recipients, and veterans.

The LRGVDC provides vehicles obtained through TxDOT and FTA's Section 5310 program to the Cities of Hidalgo and Rio Hondo to provide demand response service to the elderly and persons with disabilities.

With the growth in Hidalgo County, some of the areas that were considered rural in the 1990 Census became urbanized after the 2000 Census. This eliminated a source of federal funds for operating costs. Moreover, this increase in population has created a problem for Rio Transit (rural transit) because rural buses and money is currently being spent for urbanized areas that should be serviced by Rio Metro (urban transit) and urban funds. The citizens that have become accustomed to using Rio Transit are eventually not going to be provided the Rio Transit service as a result of their area's urbanization and the regulation to discontinue using rural funds on an urban area. Although there is not a solution to this matter at the present time, THE LRGVDC has recognized this problem and is currently working on an action plan to address this issue.

Fleet Characteristics

The LRGVDC uses FTA Section 5307, 5310 and 5311 and state funds to purchase buses and vans for all services. THE LRGVDC currently owns 92 vehicles and all vehicles are wheelchair-accessible.

The LRGVDC recently took delivery of four new vehicles and plans to retire 17 older vehicles that have exceeded their useful life. These vehicles will be replaced by vehicles funded under the America Recovery and Reinvestment Act, 2009. THE LRGVDC follows the FTA useful life requirements in circular 9030.1C urbanized.

The LRGVDC owns and operates a maintenance facility that was developed with federal and state funds. The facility is 4,000 square feet on a five-acre site in Weslaco. The building contains offices and two maintenance bays, a fueling station, and an outdoor, secure vehicle storage.

Coordination

The LRGVDC is participating in a regional transit coordination committee sponsored by TxDOT and consisting of all public transportation providers, the MPO, the Department of Social Services, major employers, and elected officials. The City of Brownsville Urban

System (BUS), McAllen Express (ME), the Town of South Padre Island (The Wave), the Community Action Council of South Texas (CACST), and cities and non-profit agencies providing Section 5310 services to the elderly and persons with disabilities are also involved.

The LRGVDC receives Section 5310 grants from TxDOT, purchases and titles the vehicles, and makes them available to the cities of Hidalgo and Rio Hondo. THE LRGVDC occasionally purchases rides on a demand response service provided by Los Amigos de Valle, a non-profit corporation.

The LRGVDC provides rural public transportation and remains focused on expanding and improving urban and rural public transit services and coordinating these resources into a seamless public transit system. Currently, as part of a regional coordination plan, the LRGVDC is working with Health and Human Service centers around the Rio Grande Valley to coordinate transportation services and increase the awareness of the availability and affordability of transit.

4.3D Long Range Goals and Priority Objectives

Public and Agency Involvement

During the fall and winter 2002, a series of surveys were conducted to determine the Long Range Transit Plan's Goals and Objectives. Project goals and objectives were developed based on the SWOT analysis of existing transit service, research of existing plans and studies, conversations with MPO and transit operations staff, and field observations. Goals are general statements of what is to be accomplished. Objectives are statements that identify the extent to which the goals will be accomplished. These goals and objectives are used in the development of alternatives for addressing the identified transportation needs and in the evaluation of alternatives; specifically, how effectively the alternatives assist in solving the needs of the study area.

A list of five general goal categories:

- Congestion – improving transit to provide an alternative to the automobile.
- Customer service – improving the overall transit experience for passengers.
- Financial – developing a system within the fiscal constraints of the region.
- Geography – providing transit coverage to the region.

- Ridership market – focusing transit improvements for specific segments of the population.

Forty potential priority objectives were also developed to fit within one of the goal categories. The priority goals were presented to the members of the Hidalgo County MPO's Transit Subcommittee, MPO Policy Advisory Committee (MPO PAC), and a list of Key Community Leaders who were asked to rank each objective as high, moderate, or low priority. For each survey, the priority objectives were presented without acknowledging which goal category they fell into in order to obtain an unbiased response.

The results of the three groups surveyed varied in both the priority objectives and general goals. Results of the MPO Transit Subcommittee indicated a strong preference for goals related to customer service and ridership markets. The MPO PAC indicated a strong preference for goals related to geographical coverage and financial. Finally, the key community leader survey indicated a strong preference for goals related to financial and ridership markets.

The Hidalgo County Long Range Transit Plans Goals and Objectives are provided in Table 4.3a based on the combined results of the three surveys.

Table 4.3a: Hidalgo County Long Range Transit Project Goals and Priority Objectives

Goal	Objectives
Goal Category: Financial - Need to provide a cost effective transit system	
Provide a balanced transit system that distributes resources based on travel demand.	Implement an economically viable and equitable fare structure Provide a financially sustainable transit system Develop a more formal regional transit governance structure Support downtown vitality and redevelopment with quality transit service At a minimum, provide basic service to the region's transit dependent population Support the regions quality of life with quality transit services
Goal Category: Market - Need to improve access to existing and future ridership markets	
Improve transit services and facilities for travel between and within regional activity centers	Concentrate future transit services in areas with high ridership potential Explore high capacity transit in future congested corridors Continue to provide a downtown focused radial route structure – both McAllen and the surrounding communities Improve bus frequency
Goal Category: Customer - Need to improve customer service	
Improve the transit passengers riding experience	Communicate schedule information clearly to customers Identify, develop and market tomorrow's transit customers Provide a comprehensive paratransit network for the region's elderly and disabled Set a very high standard for customer relations

This section identifies service improvements for rural, urban county, and McAllen services. Issues related to urban growth, rural service needs and urban service needs, employment and economic development are also identified. Existing route structures (Figure 4.3d.1) are compared to identify service needs and the findings documented using maps and descriptions of service needs throughout Hidalgo County.

Identifying Needs and Getting Public Feedback

MCALLEN EXPRESS TRANSIT

In general complaints were related to issues like drivers not stopping at the right location, difficulty obtaining a transfer, and air conditioning problems on some vehicles. Some suggestions were given for route extensions and alterations. Riders spoke about the possibility of placing more stops and having more shelters in specific areas. Another request for service is the extension of service hours. MET riders would like for the hours of operation to be extended until 10:00 p.m. While the expressed concerns and issues require continuing attention from transit staff, they do not require major changes to the system. Despite some issues with the current bus fleet, particularly the air conditioning systems, MET continues to work diligently to address the issues and provide reliable public transportation to all of its patrons.

RIO METRO

The most frequent comments requested service on additional days, both weekdays and Saturdays. Some riders requested service changes; others cited problems with drivers regarding stops and travel speed. One indicated that the printed schedule is confusing. Most comments seem to be isolated concerns that should be addressed by staff on a case by case basis and cannot be considered system deficiencies. The request for service on additional days of the week was wide spread enough that it requires some attention and may justify a significant restructuring of the system.

RIO TRANSIT

Over 70% of the riders surveyed requested improvements, particularly additional days of service, which include weekend service, mostly on Saturday. This overriding concern expressed by existing users requires some attention and may justify a significant restructuring of the system.

After receiving feedback from several different parties, the goals and performance results of the existing system were used to make an estimate of transit demand for each of the three systems. The estimates are provided in the paragraphs below.

MCALLEN EXPRESS TRANSIT

Ridership for MET has steadily increased from one year to the next. In FY 2008 ridership reached an all time high with a total of 413,000 passenger trips. This sum is greater than ridership predictions prior to the start of the fiscal year. The consistent pattern of growth dictates the current need of public transportation for McAllen residents, as well as those commuting into McAllen via Rio Metro from other cities within the County and those visiting from south of the border. McAllen Express Transit hopes to see similar ridership increases in order to build density along current routes and start looking at alternate modes of transportation.

RIO METRO

Rio Metro has experienced a stabilization of its ridership levels during the last several years. In the most recent fiscal year (FY 2009) ridership was 51,487 and in fiscal year 2009 ridership was 52,068. This ridership level is expected to remain stable for the foreseeable future if no service modifications or additions are made to the existing route structure.

Ridership: Would be expected with an increase in route frequencies, addition of weekend service, extension of service into underserved areas, such as colonias along Highway 107 near Edinburg and near Business 83, and route re-alignments. However, financial constraints, such as a lack of readily available local match, are a prime deterrent to any major service changes.

RIO TRANSIT

As service to urban areas via Rio Metro has increased, the number of Rio Transit routes serving rural areas has decreased. The sole Rio Transit route in Hidalgo County connects Sullivan City in the West with McAllen routes and other LRGVDC routes at the downtown Central Station.

Ridership: This route is augmented with demand-response service that also provides connectivity for rural residents. The total ridership for Rio Transit was 50,596 in fiscal year 2009 and 44, 620 in fiscal year 2008, an increase of over 13%. This level of service for a rural route that runs weekdays compares favorably with the average effectiveness of rural systems in Texas.

LRGVDC Fare and Service Change Procedures

In order to institute any changes or improvements to address the above mentioned needs there is already a set of procedures in place to change either a route or fare. These procedures are shown in the following section:

A. Fare changes or Service changes are to be considered and implemented only when necessary to meet revenue requirements and prevent service reductions, and to fund service enhancements and capital investment projects.

B. Any time that the LRGVDC proposes a change in fares, it will use the following public process to notify and take comments from the public.

1. The LRGVDC will hold bilingual (English/Spanish) public meetings in the service area or district. The LRGVDC will place a special emphasis on reaching those customers who are most transit dependent. These meetings will be publicized bilingually in daily and weekly newspapers that will reach our diverse population of customers.

2. The LRGVDC will publicize all material aspects of any proposed fare or service changes. A notice of the proposed new fares and service changes will be distributed reasonably in advance of the first public meeting. In addition to this notice will include any proposed changes in prices and usage restrictions for passes, and transfer policies.

3. The LRGVDC (Executive Director) Kenneth N. Jones, Jr. will submit fare structural changes or service changes to the Board of Directors for Approval.

4. The LRGVDC staff will report to the Board of Directors after the last public meeting, summarizing the comments made at the meeting and recommending any appropriate revisions to the proposed fare or service changes.

5. The LRGVDC Board of Directors will consider the overall financial condition of the LRGVDC, the rider ship and revenue implications of the fare or service changes and the staff summary of public comments and determine the appropriate fare for the service being provided.

4.3E Long Range Trends

A significant part of planning long-range transit services is to document the long-range trends underway in Hidalgo County. Over the years, both population and employment figures have increased substantially, reflecting the region's increased urbanization and economic development. The introduction of general public transit services was in 1997 with McAllen Express, Rio Metro and Rio Transit that developed to meet the needs of Hidalgo County. A number of social service agencies and private non-profit corporations have also become very active in the region, with some opting to provide specialized transit service to their clients. The City of McAllen took over the operation of McAllen Express in 2005 and has increased overall growth of the system by 20%.

The trends discussed below show that as population and overall travel have increased, public transit ridership has grown substantially. Today about 8,000 people board a bus every weekday at Central Station in McAllen, up from almost 7,000 in 2004. More than 80% of the region's transit passengers are destined for downtown McAllen. The analysis of long-term transit trends indicates that:

- Transit ridership growth is outpacing both population growth and the commuter transportation market growth. The high ridership growth rates reflect a new-start system that has caught on with region's citizens.
- The steady, long-term population growth in the region represents an opportunity to further develop transit service through the efficient provision of transit facilities and services. Traffic on the region's arterial street network is expected to increase and the average travel time will be longer in 2030 than in 2004. Over time, a safe, efficient, and reliable public transit system can provide regional residents more than one travel choice.
- For the foreseeable future, the top transit market in the region will be the suburban-downtown travel shed of downtown McAllen. Second to develop will be travel between communities, especially east-west. This travel market will eventually generate significant transit trips. A radial route structure based on downtown McAllen is appropriate for the region, followed by a gradually more interlocking hub-and-spoke system based on local community centers such as Edinburg and Pharr.

For forecasting purposes, the long-range transit plan looks to the overall trends in population and employment, the growth in the commuter market, and long-term transit

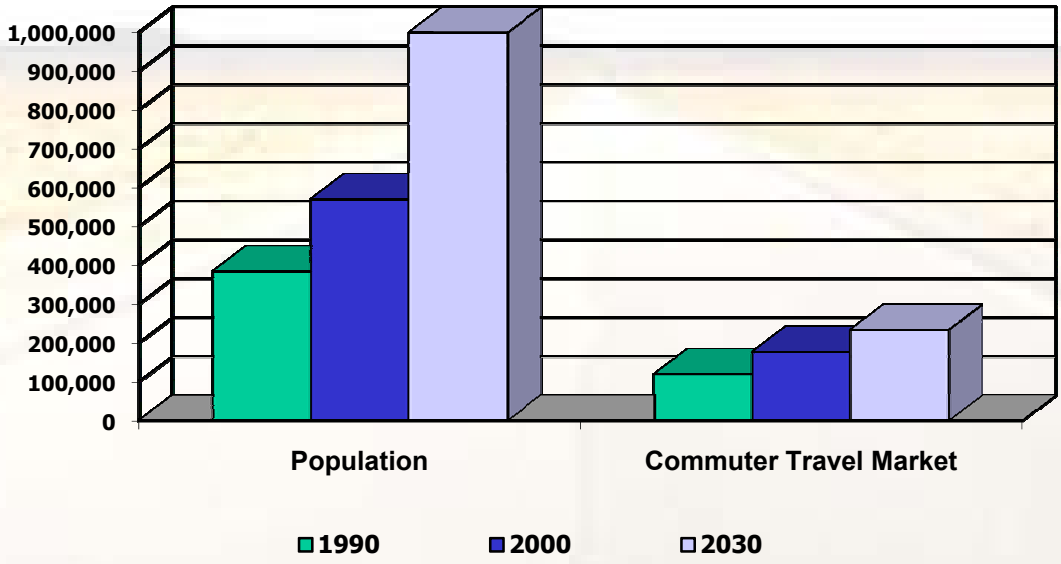
ridership trends. Other factors, such as poverty levels, the average time spent commuting to work, and the type of riders being served are also important long-term elements of the plan.

Population and Travel Market Trends

On average, population growth in Hidalgo County has averaged 4.85% annually. From 1990 to 2000, the population in the County went from 383,545 to 569,463; an increase of 185,918 people in ten years. These population figures highlight the region's substantial and accelerated development patterns during the 1990s.

Based on population forecasts, the rate of population growth in Hidalgo County is expected to ease slightly but still remain strong at 2.51% growth annually**.** Recently, the Lower Rio Grande Development Council has been developing forecasts of future population and employment growth in the County. Partly based on historical trends and partly on land use and economic development trends, future population forecasts indicate that approximately 998,389 people will reside in the County by the year 2030 as shown in figure 4.3e.1.

Figure 4.3.2: Projected Population and Commuter Travel to 2030



The number of people commuting daily to work has increased substantially and is expected to grow at or above the rate of population growth. From 1990 to 2000, the growth in the commuter transportation market has increased at or above the rate of population growth, roughly 1.92% annually. According to the US Census, approximately 119,196 people commuted daily to work in Hidalgo County, with 84,118 of them driving alone to work

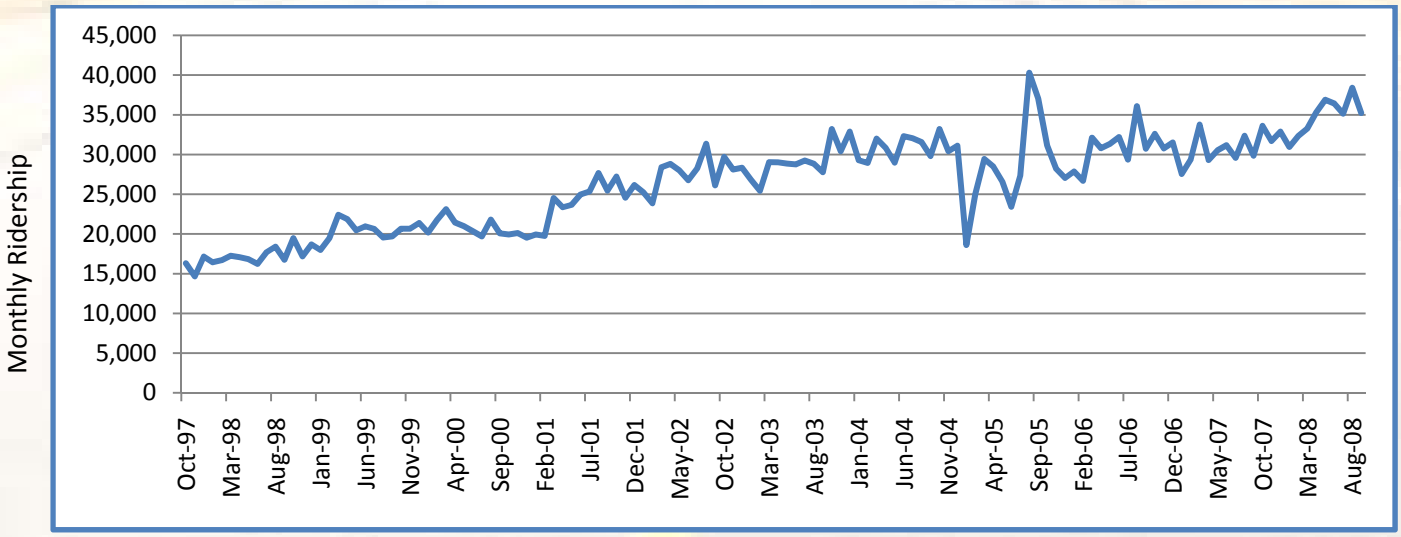
every day (71%). In the 2000 Census, the number of people who commuted to work daily rose to 176,308, an increase of more than 33%. The number of people driving to work alone also rose, and the region as a whole became more reliant on the automobile, with approximately 74% of the commuter market driving to work alone on a daily basis.

Transit Trends

Overall transit ridership is growing at very high rates. McAllen Express Transit ridership increased from 368,398 in 2007 to 412,151 in 2008 – a 12% increase. While population growth and the growth of the commuter transportation market have historically averaged 1.9% per year, transit ridership has seen an overall 12% to 78% per year growth. The high growth rates show that the availability of public transit is "catching on" with traditional market segments, especially in and around McAllen.

From 2000 to 2008, ridership on the McAllen Express Transit has grown 53%. In October 1997, the month the McAllen Express system started, monthly ridership totaled 16,313 passengers. By October 2005, monthly ridership averaged 29,252 and by October 2008 the system was carrying 34,346 passengers monthly – an 18% increase. Despite some seasonal variations, ridership growth was spread throughout the system and on all routes as shown on figure 4.3e.2. The large and widespread gains indicate that the system is serving its target customers well. Also, the gains indicate a strong latent demand to go to downtown McAllen, which is further fueled by the operation of the international multimodal transit facility.

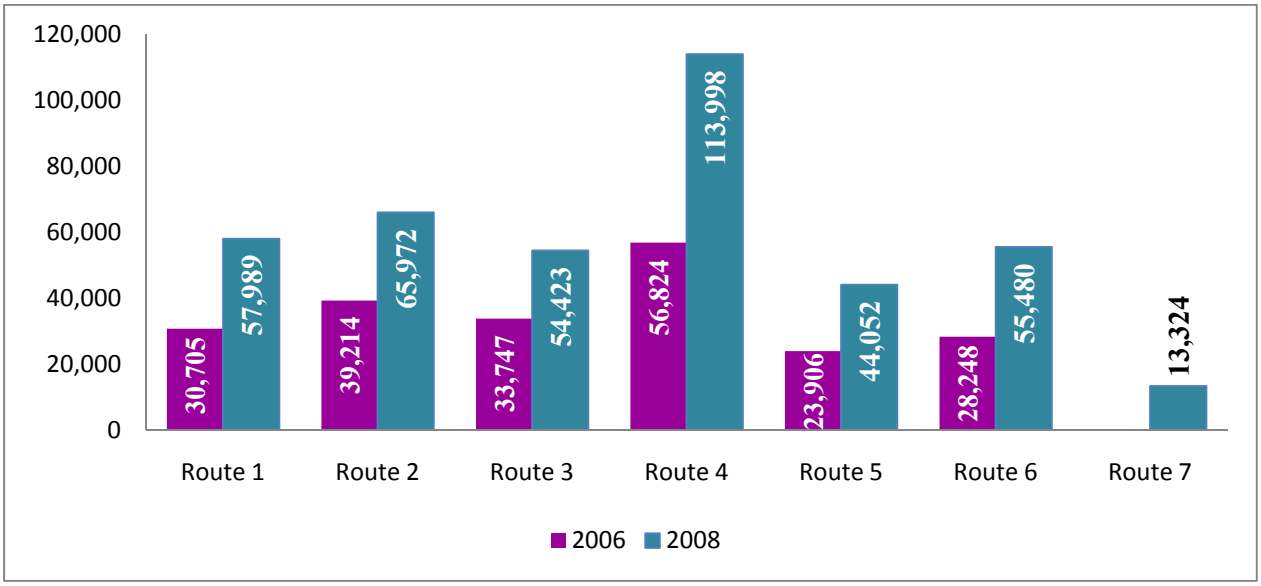
Figure 4.3.3: McAllen Express Transit (MET) Monthly Transit Ridership



McAllen Express Transit has been initially and rightly focused on the travel market to downtown McAllen. Central Station serves the origin of all McAllen Express Transit routes. In the 2002 "The Heart of the City" resident attitude survey, 69% of surveyed residents said they shopped in downtown McAllen in the last 12 months, and 54% of residents said they ate at a downtown restaurant. The same survey indicated that in 2004, 36% of McAllen residents either visited or used Central Station. More specifically, of those residents who work downtown, 58% said they either visit or use Central Station. The large numbers of city residents going to downtown McAllen is the core transit market for other regional transit system.

Access to downtown McAllen was the top-rated improvement most likely to bring residents closer to downtown. When asked in the same survey what improvements would increase the likelihood of going downtown, more close-in parking was ranked as number one. When asked what suggestions they would make to improve the central business district, two of the top four suggestions related to access. This indicates the desire of residents to easily travel to downtown McAllen and to minimize walking distances. McAllen Express Transit is uniquely suited for this market segment. Since that survey, the City of McAllen has addressed these issues by constructing a five story parking garage with a food court that is centrally located in downtown McAllen. This Garage is within walking distance to the bus terminal. Since the opening of this structure in December 2007 almost 100,000 parkers have utilized the facility. This Garage is also used as a center for all of McAllen's Park and Rides. Due to the growing demand of downtown parking the garage has become a 24 hour operation as of March of 2009.

Figure 4.3.4: McAllen Express Transit (MET) Ridership per Route, 2006 and 2008



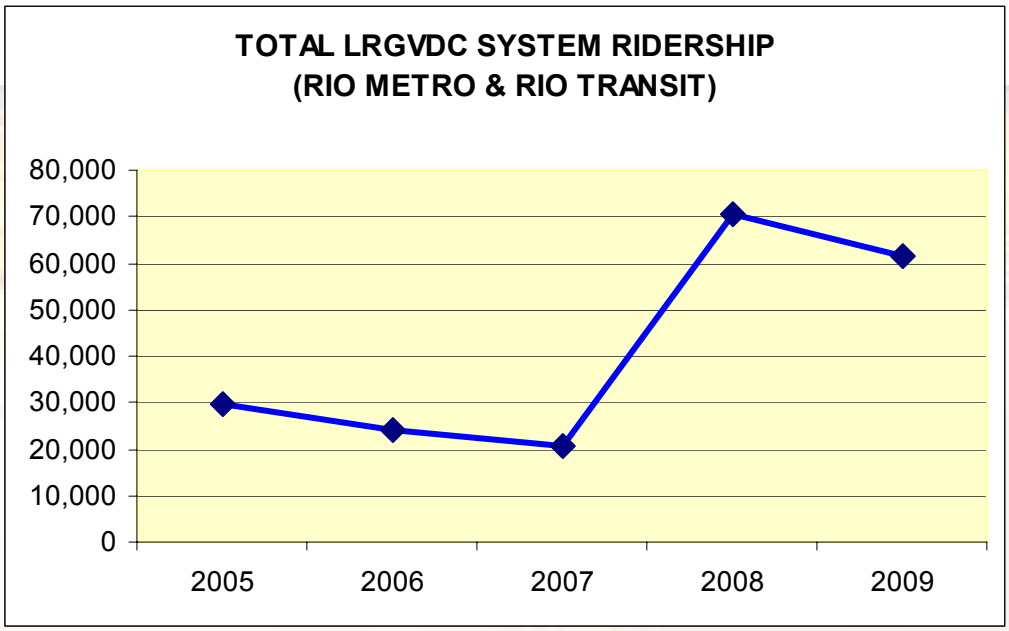
Rio Metro has also seen a large ridership increase over its lifespan, growing 78% in its first year of operations and 12% in its second year. Ridership has since stabilized at or near a level of 50,000. The addition of a Job Access and Reverse Commute (JARC) route in 2007 running along Highway 107 and Business 83 has offset ridership decreases on other routes. Overall, the five route system is expected to see only small increases in ridership due to a static route structure. As funds become available for additional expansion and amendment, service areas may be added. Targeted service areas for future expansion include:

a) Areas of potentially high ridership generation, including along Highway 281, along Highway 107, and north of Highway 107.
b) Areas of added connectivity between systems/routes, such as the area between Mercedes and Cameron County that may connect transit routes in both counties. (Source: *The Lower Rio Grande Valley Regional Public Transportation Coordination Plan*)
c) Areas of existing need in urban areas, such as within the cities of Edinburg and Mission

A newly-constructed Transit Center, located centrally in Weslaco, anchors regional transit services as of 2007. This facility houses over forty transit vehicles and all transit administrative, maintenance, and operational staff. A maintenance garage, fueling station, and bus washer are also located on-site. Most transit routes begin their service day at this location and the facility offers room for future expansion.

Rio Transit effectiveness compares favorably to other non-urbanized systems in Texas. As of fiscal year 2007, the system averaged .38 trips per capita and .17 trips per revenue mile. Trips per mile approached the state average of .21. (Source: *Texas Transit Statistics, 2007*) The system is now serviced by one route in Hidalgo County and ridership is expected to remain stable for the near future. Performance for this route far exceeds typical performance for a rural route. Depending on the designations bestowed by the upcoming 2010 census, additional service additions for rural areas may be warranted. That service would be targeted at those areas which connect to urban service in McAllen, Mission, Edinburg, Pharr, and other areas in the region.

Figure 4.3.5: Total LRGVDC System Ridership FY 2005-2009



TRANSIT BACKGROUND AND METHODOLOGY

The FTA is one of 11 operating administrations within the U.S. Department of Transportation that provides funding of combined formula and discretionary programs totaling more than $10B to support a variety of locally planned, constructed, and operated public transportation systems throughout the U.S., including buses, subways, light rail, commuter rail, streetcars, monorail, passenger ferry boats, inclined railways, and people movers. To carry out its mission, FTA administers a variety of grant programs to serve local communities throughout the United States. Following are the main transit funding categories available to the Lower Rio Grande Valley.

Section 5307 - Large Urban Cities

This program (49 U.S.C. 5307) makes Federal resources available to urbanized areas and to Governors for transit capital and operating assistance in urbanized areas and for transportation related planning. An urbanized area is an incorporated area with a population of 50,000 or more that is designated as such by the U.S. Department of Commerce, Bureau of the Census.

Eligible purposes include planning, engineering design and evaluation of transit projects and other technical transportation-related studies; capital investments in bus and bus-related activities such as replacement of buses, overhaul of buses, rebuilding of buses, crime prevention and security equipment and construction of maintenance and passenger facilities; and capital investments in new and existing fixed guide-way systems including rolling stock, overhaul and rebuilding of vehicles, track, signals, communications, and computer hardware and software. All preventive maintenance and some Americans with Disabilities Act complementary paratransit service costs are considered capital costs.

For urbanized areas with 200,000 in population or more, funds are apportioned and flow directly to a designated recipient selected locally to apply for and receive Federal funds. For these urbanized areas operating assistance is not an eligible expense. Also in these

areas, at least one percent of the funding apportioned to each area must be used for transit enhancement activities such as historic preservation, landscaping, public art, pedestrian access, bicycle access, and enhanced access for persons with disabilities.

For urbanized areas under 200,000 in population, the funds are apportioned to the Governor of each state for distribution. A few areas under 200,000 in population have been designated as transportation management areas and receive apportionments directly.

Section 5310 - Transportation for Elderly Persons and Persons with Disabilities

This program (49 U.S.C. 5310) provides formula funding to States for the purpose of assisting private nonprofit groups in meeting the transportation needs of the elderly and persons with disabilities when the transportation service provided is unavailable, insufficient, or inappropriate to meeting the needs. Funds are apportioned based on each State's share of population for these groups of people.

Funds are obligated based on the annual program of projects included in a statewide grant application. The State agency ensures that local applicants and project activities are eligible and in compliance with Federal requirements, that private non-profit transportation providers have an opportunity to participate, and that the program provides for as much coordination of federally assisted transportation services as possible. Once FTA approves the application, funds are available for state administration of its program and for allocation to individual sub-recipients within the state.

The Section 5310 program was established in 1975 as a discretionary capital assistance program. In cases where public transit was inadequate or inappropriate, the program awarded grants to private non-profit organizations to serve the transportation needs of the elderly persons and persons with disabilities. FTA apportioned the funds among the States by formula for distribution to local agencies, a practice made a statutory requirement by the ISTEA.

In the early years of the program, many of the sub-recipient non-profit agencies used the vehicles primarily for transportation of their own clients. Funding for this section ranged between $20–35 million annually until the passage of ISTEA, when it increased to the $50–60 million range. ISTEA also introduced the eligibility of public agencies under limited circumstances to facilitate and encourage the coordination of human service transportation. Increasingly, FTA guidance encouraged and required coordination of the program with other Federal human service transportation programs. In lieu of purchasing vehicles, acquisition of service in order to promote use of private sector providers and coordination with other human service agencies and public transit providers was made an eligible expense under ISTEA. Other provisions of ISTEA introduced the ability to transfer flexible funds to the program from certain highway programs, and the flexibility to transfer funds from the Section 5310 program to the rural and urban formula programs. The Transportation Equity Act for the 21st Century (TEA–21) enacted in 1998, reauthorized the Section 5310 program. TEA–21 increased the funding levels for the Section 5310 program but made no significant program changes.

In 2005, the SAFETEA–LU introduced the requirement that projects funded with 5310 funds be derived from a locally developed, coordinated public transit-human services transportation plan, it removed the flexibility that funds can be transferred to Section 5311 for program purposes during the fiscal year apportioned. Title 49 U.S.C. 5310 authorizes the formula assistance program for the special needs of elderly individuals and individuals with disabilities. FTA, on behalf of the Secretary of Transportation, apportions the funds appropriated annually to the States based on an administrative formula that considers the number of elderly individuals and individuals with disabilities in each State. These funds are subject to annual appropriations. Title 49 U.S.C. 5310(a)(1) authorizes funding for public transportation capital projects planned, designed and carried out to meet the special needs of elderly individuals and individuals with disabilities.

Below are the Section 5310 Annual Apportionments from Fiscal Years 2005 through 2009.

FY 2005: $94,526,689

FY 2006: $110,325,600

FY 2007: $116,659,554

FY: 2008: $126,723,652

FY 2009 $135,823,746

Due to the lack of a new transportation bill, staff performed a linier progression on funding to meet the requirements of a fiscally responsible forecast. Below are the calculations staff came up with as well as the funding amounts projected to FY 2035. It should be noted that the New Freedom program had an original projection of an increase of 20% per year. Staff is mindful that this is an unreal expectation and recalculated the projections at 12%, closer to the forecast of the 5307 funding forecast.

FTA 5307 Funding Forecast

Year	Ave % Increase	Amount
2010	12.19%	$3,984,062
2011	12.19%	$4,469,719
2012	12.19%	$5,014,578
2013	12.19%	$5,625,855
2014	12.19%	$6,311,647
2015	12.19%	$7,081,037
2016	12.19%	$7,944,215
2017	12.19%	$8,912,615
2018	12.19%	$9,999,063
2019	12.19%	$11,217,948
2020	12.19%	$12,585,416
2021	12.19%	$14,119,578
2022	12.19%	$15,840,755
2023	12.19%	$17,771,743
2024	12.19%	$19,938,118
2025	12.19%	$22,368,575
2026	12.19%	$25,095,304
2027	12.19%	$28,154,422
2028	12.19%	$31,586,446
2029	12.19%	$35,436,834
2030	12.19%	$39,756,584
2031	12.19%	$44,602,912
2032	12.19%	$50,040,006
2033	12.19%	$56,139,883
2034	12.19%	$62,983,335
2035	12.19%	$70,661,004

Section 5311 - Rural and Small Urban Areas

This program (49 U.S.C. 5311) provides formula funding to states for the purpose of supporting public transportation in areas of less than 50,000 in population. Eighty percent of the statutory formula is based on the non-urbanized population of the States. Twenty percent of the formula is based on land area. No State may receive more than 5 percent of the amount apportioned for land area. In addition, FTA adds amounts apportioned based on non-urbanized population according to the growing States formula factors of 49 U.S.C. 5340 to the amounts apportioned to the States under the Section 5311 program.

Funds may be used for capital, operating, and administrative assistance to state agencies, local public bodies, Indian tribes, and nonprofit organizations, and operators of public transportation services. The state must use 15 percent of its annual apportionment to support intercity bus service, unless the Governor certifies, after consultation with affected intercity bus providers that these needs of the state are adequately met. Projects to meet the requirements of the Americans with Disabilities Act, the Clean Air Act, or bicycle access projects, may be funded at 90 percent Federal match. The maximum FTA share for operating assistance is 50 percent of the net operating costs.

The goals of the non-urbanized formula program are: to enhance the access of people in non-urbanized areas to health care, shopping, education, employment, public services, and recreation; to assist in the maintenance, development, improvement, and use of public transportation systems in rural and small urban areas; to encourage and facilitate the most efficient use of all Federal funds used to provide passenger transportation in non-urbanized areas through the coordination of programs and services; to assist in the development and support of intercity bus transportation; and to provide for the participation of private transportation providers in non-urbanized transportation to the maximum extent feasible.

Funding is apportioned by a statutory formula that is based on the latest U.S. Census figures of areas with a population less than 50,000. The amount that the state may use for state administration, planning, and technical assistance activities is limited to 15 percent of the annual apportionment. States must spend 15 percent of the apportionment to support rural intercity bus service unless the Governor certifies, after consultation with affected intercity bus providers that the intercity bus needs of the state are adequately met.

The maximum Federal share for capital and project administration is 80 percent (except for projects that meet the requirements of the Americans with Disabilities Act (ADA), the Clean Air Act, or bicycle access projects, which may be funded at 90 percent). The maximum Federal share for operating assistance is 50 percent of the net operating costs. The local share is 50 percent, which shall come from an undistributed cash surplus, a replacement or depreciation cash fund or reserve, or new capital.

Section 5311 (b)(3) - Rural Transit Assistance Program

The Rural Transit Assistance Program (RTAP) (49 U.S.C. 5311(b)(3)) provides a source of funding to assist in the design and implementation of training and technical assistance projects and other support services tailored to meet the needs of transit operators in non-urbanized areas. RTAP has both State and national program components. The State program provides an annual allocation to each State to develop and implement training and technical assistance programs in conjunction with the State's administration of the Section 5311 formula assistance program. The national program provides for the development of information and materials for use by local operators and State administering agencies and supports research and technical assistance projects of national interest. There is no Federal requirement for a local match.

FTA allocates RTAP funds to the states based on an administrative formula. The RTAP formula first allocates $65,000 to each of the states and Puerto Rico, and $10,000 to the Insular Areas of Guam, American Samoa, and Northern Marianas, and then distributes the balance according to non-urbanized population of the states. The national component of

the program is funded under a competitive cooperative agreement. There is no Federal requirement for a local match.

Section 5316 - Job Access and Reverse Commute Program (JARC)

The Job Access and Reverse Commute program (JARC) was established to address the unique transportation challenges faced by welfare recipients and low-income persons seeking to obtain and maintain employment. Many new entry-level jobs are located in suburban areas, and low-income individuals have difficulty accessing these jobs from their inner city, urban, or rural neighborhoods. In addition, many entry level-jobs require working late at night or on weekends when conventional transit services are either reduced or non-existent. Finally, many employment related-trips are complex and involve multiple destinations including reaching childcare facilities or other services. The JARC program also funds reverse commute transit services available to the general public.

The JARC program has had a dramatic impact on the lives of thousands of welfare recipients and low-income families, helping individuals successfully transition from welfare to work and reach needed employment support services such as childcare and job training activities.

Section 3037 of the Transportation Equity Act for the 21st Century (TEA–21) required that JARC project selection be made through a national competition based on statutorily specified criteria. FTA conducted competitions and selected projects for funding appropriated in FY 1999–2002. However, beginning in FY 2000, Congress also began designating specific projects and recipients to receive JARC funding in the conference reports accompanying the annual appropriations acts, and directed FTA to honor those designations with statutory language specifying that "notwithstanding any other provision of law, projects and activities designated [in the conference reports] shall be eligible for funding." Each year, more projects were congressionally designated until finally all JARC project funding was allocated to congressionally designated projects and recipients. Although SAFETEA–LU repealed Section 3037 of TEA–21 and substituted the new

provisions of 49 U.S.C. 5316, those projects designated by Congress under Section 3037 and not yet obligated remain available to the project for obligation under the terms and conditions of Section 3037.

With the passage of the SAFETEA–LU, JARC funding was allocated by formula to States for areas with populations below 200,000, and to designated recipients for areas with populations of 200,000 or more. The formula is based on the number of eligible low-income and welfare recipients in urbanized and rural areas. SAFETEA-LU authorized a total of $727 million for JARC grants from Fiscal Years 2006 through 2009.

The formula-based program is intended to provide an equitable funding distribution to States and communities as well as stable and reliable funding in order to implement locally developed, coordinated public transit-human services transportation plans. FTA continues to provide maximum flexibility to communities in designing plans and projects to meet the transportation needs of low-income people and welfare recipients.

In August of 2007, the HCMPO developed a competitive process for transit providers within the County to compete for the JARC Funding based upon several criteria. A copy of the application is in the appendix for review.

JARC Funding Forecast

Year	Ave % Increase	Amount
2010	10.37%	$987,403
2011	10.37%	$1,089,797
2012	10.37%	$1,202,809
2013	10.37%	$1,327,540
2014	10.37%	$1,465,206
2015	10.37%	$1,617,148
2016	10.37%	$1,784,846
2017	10.37%	$1,969,935
2018	10.37%	$2,174,217
2019	10.37%	$2,399,683
2020	10.37%	$2,648,530
2021	10.37%	$2,923,183
2022	10.37%	$3,226,317
2023	10.37%	$3,560,886
2024	10.37%	$3,930,150
2025	10.37%	$4,337,706
2026	10.37%	$4,787,526
2027	10.37%	$5,283,993
2028	10.37%	$5,831,943
2029	10.37%	$6,436,715
2030	10.37%	$7,104,203
2031	10.37%	$7,840,909
2032	10.37%	$8,654,011
2033	10.37%	$9,551,432
2034	10.37%	$10,541,915
2035	10.37%	$11,635,112

Section 5317 - New Freedom Program

The New Freedom formula grant program is a new program authorized in the Safe Accountable Flexible and Efficient Transportation Equity Act - A Legacy for Users (SAFETEA-LU) for the purpose of providing additional tools to overcome existing barriers facing Americans with disabilities seeking integration into the work force and full participation in society. Lack of adequate transportation is a primary barrier to work for individuals with disabilities. The 2000 Census showed that only 60 percent of people between the ages of 16 and 64 with disabilities are employed. The New Freedom formula grant program seeks to reduce barriers to transportation services and expand the transportation mobility options available to people with disabilities beyond the requirements of the Americans with Disabilities Act (ADA) of 1990.

The New Freedom Program grew out of the New Freedom Initiative introduced by the Bush Administration under Executive Order 13217, "Community-Based Alternatives for Individuals with Disabilities," on June 18, 2001. The Order states: "The United States is committed to community-based alternatives for individuals with disabilities and recognizes that such services advance the best interests of the United States", and calls upon the Federal government to assist States and localities to swiftly implement the decision of the United States Supreme Court in Olmstead v. L.C.

Executive Order 13217 instructed six Federal agencies, including the Departments of Justice, Health and Human Services, Education, Labor, Housing and Urban Development and the Social Security Administration to "evaluate the policies, programs, statutes and regulations of their respective agencies to determine whether any should be revised or modified to improve the availability of community-based services for qualified individuals with disabilities." The Departments of Transportation and Veterans Affairs, the Small Business Administration, and the Office of Personnel Management, though not named in the Executive Order, also joined in the implementation effort. Together, these agencies formed the Interagency Council on Community Living under the leadership of the DHHS.

Individuals who are transportation-disadvantaged face different challenges in accessing services depending on whether they live in urban, rural, or suburban areas. The geographic dispersion of transportation-disadvantaged populations also creates challenges for human service programs hoping to deliver transportation for their passengers.

Over the years, in response to these challenges, Federal, State and local governments, and community-based organizations created specialized programs to meet particular transportation needs. At the Federal level alone, there are at least 62 separate programs, administered by eight Federal departments, and even more agencies, that provide special transportation services to individuals with disabilities, older adults, and people with low income. Most of these are human service programs that fund limited transportation services to provide eligible participants with access to particular services, such as job training, health care, senior centers, or rehabilitation programs.

President Bush included funds for the New Freedom Program in the annual budget request to Congress since FY 2003; however, it was not until the enactment of SAFETEA–LU in 2005 that funding was authorized by Congress. Funding was first appropriated for the transportation provision in FY 2006. The New Freedom Program is intended to fill the gaps between human service and public transportation services previously available and to facilitate the integration of individuals with disabilities into the workforce and to a full participation in the community.

New Freedom Funding Forecast

Year	Ave % Increase	Amount
2010	12.00%	$228,340
2011	12.00%	$255,741
2012	12.00%	$286,430
2013	12.00%	$320,801
2014	12.00%	$359,297
2015	12.00%	$402,413
2016	12.00%	$450,703
2017	12.00%	$504,787
2018	12.00%	$565,361
2019	12.00%	$633,205
2020	12.00%	$709,189
2021	12.00%	$794,292
2022	12.00%	$889,607
2023	12.00%	$996,360
2024	12.00%	$1,115,923
2025	12.00%	$1,249,834
2026	12.00%	$1,399,814
2027	12.00%	$1,567,792
2028	12.00%	$1,755,927
2029	12.00%	$1,966,638
2030	12.00%	$2,202,635
2031	12.00%	$2,466,951
2032	12.00%	$2,762,985
2033	12.00%	$3,094,543
2034	12.00%	$3,465,888
2035	12.00%	$3,881,795

4.4 Non Motorized Element

4.4A Introduction

The passage of ISTEA in 1991 and Transportation Equity Act for the 21st Century (TEA-21) in 1998, describes how Federal aid funds may be used for bicycle and pedestrian projects. These projects are broadly eligible for all of the major funding programs where they compete with other transportation projects for available funding at the State and MPO levels. Non-motorized transportation facilities are eligible for National Highway System (NHS) funds if they are an incidental part of larger NHS project or if they are adjacent to an NHS funded project. Also, if they are an incidental part of larger NHS project or if they are adjacent to an NHS project. There is a broad eligibility for Surface Transportation System (STP) funds for bike lanes, trails, sidewalks, crosswalks, bike parking, education and safety programs.

Many MPOs currently are including bicycle and pedestrian facilities in their long-range plans. The purpose of this plans are to encourage the use of these modes of transportation as a means of daily travel. The MPO has the responsibility for upgrading and improving the integration between the different modes of transportation within our metropolitan area in order to maximize the mobility of people and goods with minimal energy consumption, air and water pollution, and social impacts. Improving the non-motorized transportation system will enhance the efficiency of the existing transportation system. Bicycle and pedestrian transportation alternatives are low capital solutions to increase mobility. They improve air quality and reduce energy consumption while promoting inter-modalism.

Table 4.4a illustrates the Usual Means of Transportation taken to work in the year 2000. It indicates that approximately 73.7 % of the those individuals going to work drove alone, while bicycles and walking combined comprised only 1.99%.

Table 4.4a: Usual Means of Transportation

Hidalgo County					
Usual Means of Transportation to Work in 2000					
Means of Transportation		Number		Percent	
Total Workers (16+ yrs of age) :		176,310		N/A	
Drove Alone :		129,940		73.70%	
Carpooled :		33,670		19.097%	
Public Transportation :		450		0.255%	
Bicycle / Walk :		3,510		1.991%	
Motorcycle / Taxi / Other :		4,870		2.762%	
Worked at Home :		3,870		2.195%	
Sources: U. S. Census 2000, CTTP Table T30, Data based on sample and subject to rounding					

Thus, we have created a Multi-modal inventory that includes existing bicycle and sidewalks facilities in Hidalgo County. Map 4.4.1 at the Appendix A show the existing routes in our area that the MPO and its partners have worked together to identify the facilities in our area. This is a new beginning and as funding becomes available we will be ready with our plan in hand to secure it.

4.4B Purpose

The purpose of the Hidalgo County Metropolitan Plan is to serve as a short and long-term guide and direction for the development of bicycle trails and lanes throughout the Hidalgo County metropolitan area. This document's describes proper transportation facility design for bicycling based on national research endeavors. Also, it shows where a system of bicycle trails, lanes and shoulders are feasible for implementation throughout the connections between communities. Finally, the plan serves as a resource for each of the member cities and to assist in the implementation of transportation enhancement projects in the future.

4.4C Bicycle Vision

Bicycling is a cost effective, energy efficient, clean, and healthy way, to travel. With the growing concerns of congestion, air quality and the public interest in promoting alternative transportation modes, the adoption of policies that encourage alternate transportation modes will aid in reducing congestion and air pollution. The principle of an efficient transportation network is to develop a system of complementary modes that support the safe and viable movement of people, goods, and services. The Hidalgo County Metropolitan Planning Organization is working towards a Master Plan, which will be the first step that supports and encourages transportation options, which emphasize convenience, safety, environmental quality and efficiency. The focus is to expand the overall capacity of the movement of people by including bicycling as an alternate transportation mode in the design of the city's new infrastructure, or in retrofitting the existing network.

A wide range community, environmental and infrastructure changes is necessary before this vision can become a reality. Many of these changes will be identified in the development of the Master Plan. First, the plan has identified existing facilities within the metropolitan study area. Second, the plan will identify how future transportation investments in the metropolitan study area can include appropriate facilities to promote bicycling and the safety of bicyclists. Third, the plan will identify how the existing infrastructure can be modified to improve opportunities for bicycling and make cycling safer.

While accomplishing the three steps, the Hidalgo County Metropolitan Planning Organization has to take into consideration the following:

- To promote planning, designation and construction of bicycle trails and bicycle lanes that will greatly enhance bicycling in the area;
- To increase safety for bicyclists through implementation of a carefully designated system of trails and lanes, and through programs designed to educate and inform the pedestrian, bicyclist, and motorist;
- To coordinate Metropolitan bicycle trails and lane connections between communities in the county;
- To provide paved shoulders or bicycle lanes on new or expanded roads designated as bicycle corridors to enhance the use of the bicycle as an effective alternative mode of transportation;

- To try to eliminate parking on shoulders that could be used as bicycle lanes throughout the different communities on designated bicycle corridors;
- Where there is only one shoulder on a roadway designated as a bicycle corridor, to try to replace it with a bicycle lane on each side of the road; and
- Identifies an appropriate leadership role for local government agencies in implementing the plan. This will include recommendations for assisting local agencies, neighborhood groups and user groups in developing future neighborhood and corridor plans for bicycling.

4.4D Goals and Objectives

An incomplete and inaccessible system presents a multitude of problems for pedestrians. There is an extensive need to connect existing pedestrian facilities into an integrated transportation system: linking neighborhoods with activity centers and linking neighborhoods and activity centers with transportation modes. Condition of existing facilities must also be considered, as navigability and safety are jeopardized on a facility with rough or broken surface. The greatest needs are safety, connectivity, and access to transit stops. In order to enhance pedestrian mobility for commuting, recreation and other travel purposes, strategies have been developed:

- Construct sidewalks along collectors and higher-classified roadways to conform to ADA requirements.
- Encourage eligible sidewalk projects to be submitted by the public, local governments, transit agencies, schools, or other entities.
- Fund projects on the basis of pedestrian counts, safety, the presence of transit stops, or high traffic volumes on the street.
- Encourage private sector funding and participation.

Include improvements such as street lighting, landscaping, crosswalks and removal of obstacles within existing sidewalks, where pedestrians walk or jog.

4.4E The Planning Process

Transportation planning entails the efficient and effective movement of people and goods. Multi modalism can consider the movement of goods between modes, as in between ships and trains and trucks. In the context of the Multimodal Plan for Hidalgo County, the modes under the consideration are transit riders, bicyclists and pedestrians.

The HCMPO had a multimodal study completed in August 2007. The development of the multimodal plan began with an assessment of the existing conditions for mode users and the facilities and programs for expansion and promotion of the uses of each of the modes of transportation. Assessment of the modes as an inter-related network of facilities and services highlighted the needs for complementary accommodations and facilities to expand the utility of the individual modes.

The goal is to develop another Multi-modal Plan for the urbanized area of Hidalgo County by using the 1996 Bicycle Plan, the Multi-modal Plan in the 2005-2030 MTP, and the recommendations from our most recent Multi-Modal Study conducted in 2007 (see map 4.4.2 in the Appendix A). The growing awareness and momentum toward improving connectivity throughout the metropolitan area has been noticeable, and there is a great need to provide connectivity between Hidalgo and Cameron County metropolitan areas as well. Public officials are responding to the need to improve pedestrian facilities. This momentum should continue and be extended in order to develop a workable pedestrian facilities system to accommodate bicyclist and pedestrian mobility

The growing awareness and momentum toward improving connectivity throughout the metropolitan area has been noticeable. Public officials are responding to the need to improve pedestrian facilities. This momentum should continue and be extended in order to develop a workable pedestrian facilities system to accommodate pedestrian mobility as indicated in Table 4.4.1 and Table 4.4.2.

Table 4.4b: Recommended Walkway Standards

	Ideals	Basics	Options
Width	Five feet and greater (at high volume pedestrian traffic areas, adjacent to high density commercial and residential areas, and at high risk locations) where adequate right-of-way is available.	Four feet and greater (in concentrated areas), with enlarged passing areas each two hundred feet or as determined by ADA standards.	Six feet or greater (in concentrated areas) when adjacent to curb lines (as right-of-way will allow). In areas with limited right-of-way, walkways of four feet may be allowed adjacent to curb lines, with provisions for passing areas and circumvention of obstacles. Meandering walkways (five feet or greater) should be encouraged (in certain circumstances to circumvent trees or obstacles, space permitting).
Location	Both sides of roadways.	Both sides of roadways (where possible).	Both sides of roadways (where possible).
Condition	Good.	Good to fair.	Good to fair.
Safe Zone	Four feet from curb line.	Two feet from curb line, or at least six feet pavement width if adjacent to curb line.	Included as part of additional width. In areas with limited right-of-way, on-street parking or bicycle lanes can provide buffers, thus adding to, or substituting for, safe zones.
Access	Full accessibility (free of obstacles, such as utility poles, mail boxes, advertising benches, etc.) exceeding ADA standards.	Full accessibility (free of obstacles), meeting all ADA standards.	Full accessibility (free of obstacles), meeting all ADA standards (exceptions only as allowed by ADA directives).
Extension	Linking pedestrian facilities with transit stops, and connecting neighborhoods with activity centers (schools, libraries, retail centers, other community centers).	Linking pedestrian facilities with transit stops, and connecting neighborhoods with activity centers.	Linking pedestrian facilities with transit stops, and connecting neighborhoods with activity centers.
Attributes	Adequate visibility and lighting, landscaping in the safe zones, other amenities contributing to pedestrian confidence, system attractiveness.	Provide for addition of security and landscaping amenities.	Provide for addition and landscaping amenities as space allows.

Table 4.4c: Recommended Crosswalk Standards

Factor	Ideals	Basics	Options
Location	Prominently marked crosswalks at all intersection locations and other locations where crossings are allowed along functionally classified roadways, exceeding ADA standards.	Prominently marked crosswalks at selected intersections and other major locations where pedestrian crossings are allowed, particularly to serve school zones, transit stops, and other centers with significant volumes of pedestrian traffic or extraordinary circumstances, meeting ADA standards.	Prominently marked crosswalks at designated crossings at selected intersections and other major locations where pedestrian crossings are allowed, with emphasis near school zones, transit stops, and high risk locations. Meets ADA standards, exceptions as allowed by ADA provisions.
Indicators	Pedestrian signals installed at all crosswalks, with crossing restricted signs indicating where pedestrian crossings are prohibited.	Pedestrian signals or crossing signs as indicators of designated crossing locations, with crossing-restricted signs indicating where pedestrian crossings are prohibited.	Pedestrian crossing signs as indicators of designated crossing locations, with crossing-restricted signs indication where crossings are prohibited.

4.4F The Non-Motorized Plan

Bicycle Plan

Bicycling is a cost effective, energy efficient, clean, and healthy way, to travel. There are at least three types of riders such as: Advanced Riders, Basic Riders and Child Riders. Bicycling destinations for child and basic riders can be similar to those of pedestrians and include nearby commercial areas, parks, schools, libraries, recreation centers, and other residential areas. With the growing concerns of congestion, air quality and the public interest in promoting alternative transportation modes, the adoption of policies that encourage alternate transportation modes will aid in reducing congestion and air pollution. Bicyclists can travel much further than nearby areas within a mile distance. A 20 to 30 minute bicycle ride traveling at a reasonable pace, a bicyclist can cover 3 to 5 miles or more. Longer distance bicyclists prefer suburban or rural roads that are continuous and have a shoulder. The principle of an efficient travel network is to develop a system of complementary transportation modes which support the safe and viable movement of people, goods and services. The Hidalgo County MPO is working on a Master Plan that will be the first step that supports, and encourages transportation options, which emphasize convenience, safety, environmental, quality and efficiency. The focus is to expand the overall capacity by including bicycling, as an alternate mode of transportation in the design of new city infrastructure and retrofitting the existing networks.

A wide range community, environmental and infrastructure changes is necessary before this vision can become a reality. Many of these changes will be identified in the development of the Master Plan. First, the plan has identified existing facilities within the metropolitan study area. Second, the plan will identify how future transportation investments in the metropolitan study area can include appropriate facilities to promote bicycling and the safety of bicyclists. Third, the plan will identify how the existing infrastructure can be modified to improve opportunities for bicycling and make cycling safer. While accomplishing the three steps, the Hidalgo County MPO has to take into consideration the following:

- To promote planning, designation and construction of bicycle trails and bicycle lanes that will greatly enhance bicycling in the area;
- To increase safety for bicyclists through implementation of a carefully designated system of trails and lanes, and through programs designed to educate and inform the pedestrian, bicyclist, and motorist;

- To coordinate Metropolitan bicycle trails and lane connections between communities in the county;
- To provide paved shoulders or bicycle lanes on new or expanded roads designated as bicycle corridors to enhance the use of the bicycle as an effective alternative mode of transportation;
- To try to eliminate parking on shoulders that could be used as bicycle lanes throughout the different communities on designated bicycle corridors;
- Where there is only on shoulder on a roadway designated as a bicycle corridor, to try to replace it with a bicycle lane on each side of the road;

The Multi Modal Plan identifies an appropriate leadership role for local government agencies in implementing the plan that the Hidalgo County MPO staff and Technical Advisory Committee members worked on together. This will include recommendations for assisting local agencies, neighborhood groups and user groups in developing future neighborhood and corridor plans for not only bicycling but for sidewalks as well. Pedestrians are people of varying abilities and purposes; they range from very young to the frail elderly old, may walk fast or even run or be very slow. All travelers are pedestrians at some point in their journey whether they make the entire trip on foot, walk to catch the bus, or walk from their car to their destination building. Many individuals choose to walk to their destinations for many reasons whether it is health, exercise, enjoyment, or sense of ecologic responsibility.

Walking is a primary mode of transportation for many persons in Hidalgo County, by necessity diminished as a preferred way to get from one place to another over the past century (as other modes of travel have emerged). Roadway transportation Networks and the resulting land use development have impacted pedestrian travel. Typically, access to employment, goods, services, and recreational activities are more convenient using automobiles. Regardless of the selected method of travel (car, bus, rail), we must rely on pedestrian mobility for at least some part of each trip. Pedestrian facilities must be an integral part of the transportation system, as they are necessary to safely and efficiently accommodate pedestrian mobility for necessary trips and provide access to other modes of travel.

The HCMPO approves the use of federal and state transportation funds and currently operates under the SAFETEA-LU. SAFETEA-LU continues a strong fundamental core formula program emphasis coupled with targeted investment. For example, Safety *in* SAFETEA-LU establishes a new core Highway Safety Improvement Program that is structured and funded to make significant progress in reducing highway fatalities. It

creates a positive agenda for increased safety on our highways by almost doubling the funds for infrastructure safety and requiring strategic highway safety planning, focusing on results. There are other programs that are target specific areas of concern, such as pedestrians, including children walking to school which further reflects SAFETEA-LU's focus on safety. There is also the *Environmental Stewardship* in which SAFETEA-LU retains and increases Funding for environmental programs of TEA-21, and adds new programs focused on the environment, including a pilot program for non-motorized transportation and Safe Routes to School. MPOs became responsible for upgrading and improving the connections of the different modes of transportation within our metropolitan area in order to maximize the mobility of people and goods with minimal energy consumption, air and water pollution, and social impacts. In September 2007, the Texas Transportation Commission approved $24.7 million to fund Safe Routes to School projects in 66 communities. TxDOT received 360 applications requesting a total of approximately $69 million. Texas does not have a State Safe Routes to School (SRTS) Advisory Committee, but instead utilizes the knowledge and skills of our 27 District SRTS local contacts, the Bicycle Advisory Committee, and the TxDOT SRTS Review Committee. The City of McAllen was awarded $747,084 to be designated for sidewalks, crosswalks, and flashing school zone sins. The City of Hidalgo was also awarded $679,775 to be designated for sidewalks and crosswalks.

4.4G Type of Cyclists

Recreational bicyclists tend to prefer facilities that are separated from the roadways, have their own right-of-way, and are safe and away from traffic. Many bicycle users, especially children and the elderly, point out that they do not ride bicycles because they do not have a safe place to ride other than local streets. Children would greatly benefit from bicycle trails, as they would have a safe place to ride separately from the traffic on the way to school of for recreational purposes. Recreational bicyclists sometimes use bicycle trails for family events and they ride together to discover themselves and be closer to nature.

Recreational bicyclists are best served by the following:

1. Access to key destinations surrounding residential areas such as schools, recreational facilities, shopping and other residential areas.
2. Relatively direct, low-stress pathways with low speeds and low motor traffic volume in urban areas (for example, local roadways), and wide shoulders in rural areas;

3. A sub-network, low-stress pathways with low speeds and low motor traffic volume in urban areas (for example, collector streets) and marked with directional and informational signage;
4. Designated bicycle facilities such as lanes marked with special striping, pavement symbols, and/or signage on collectors and arterials in urban areas; and
5. Bicycle trails made out of concrete, asphalt milling or gravel/cliché separated from the roadways crossing considerable distances.

Commuting Bicyclists

Commuting bicyclists use the bicycle as a source to go to work, to school or to do light shopping throughout the community. Even though there are many of these type of bicyclists in the Hidalgo County metropolitan area due to extreme weather conditions and the lack of proper facilities for them to use, it is extremely important to consider this type of bicyclist in the future. This would ensure the provision of at least bicycle safe facilities as an alternative to using the automobile for commuting.

Commuting bicyclists do not require the special bicycling facilities of the recreation bicyclists. Instead, these uses are best served by designing or redesigning all roadways to accommodate shared usage by motor vehicles and bicycles with planned roadway improvements (such as attention to drainage grates, pavement quality, signal actuation, re-dimensioning traffic lanes, marking bicycle lanes, etc.). The terms "side outside lane" and "wide paved shoulder" are often categorized as "facility types" to describe one aspect of roadway with an urban curb-and-gutter cross-section (these types of facilities are explained in more detailed in the "On-Road Bicycle Facilities" section). Commuting bicyclists enjoy using these types of facilities because they prefer a safe distance from the automobile traffic, they like a smooth pavement surface, and because they have a direct connection to where they want to commute.

While the commuting bicyclist comprises the minority of all bicyclists, they are majority of cyclists using collectors and arterials. Common examples of commuting bicyclists are police on bicycles, parents with children aboard, serious bicycle tourists, and some highly skilled young adults traveling to middle and high schools.

Commuting bicyclists are best served by the following:

1. Direct access to all destinations using the existing street and highway system via a wide curb lane, bicycle lane or wide paved shoulder;

2. Sufficient operating space on the roadway to reduce the need for either the bicyclist or motor vehicle operator to change position when passing each other; and the
3. Opportunity to operate at the individual maximum bicycle speed with minimum delays.

The Racing/Long Distance Cyclists

The racing/long distance cyclists prefer routes throughout the rural areas on the shoulders of Farm-to-Market roads. These cyclists do not mind being next to high speed traffic as long as they can use road shoulders. These cyclists ride for hundreds of miles a week and would not find bicycle trails, lanes or shoulders inside communities useful for their practices. Most of these cyclists basically need shoulders in good condition, free of cracks, potholes or rocks, in order to reach high speeds safely.

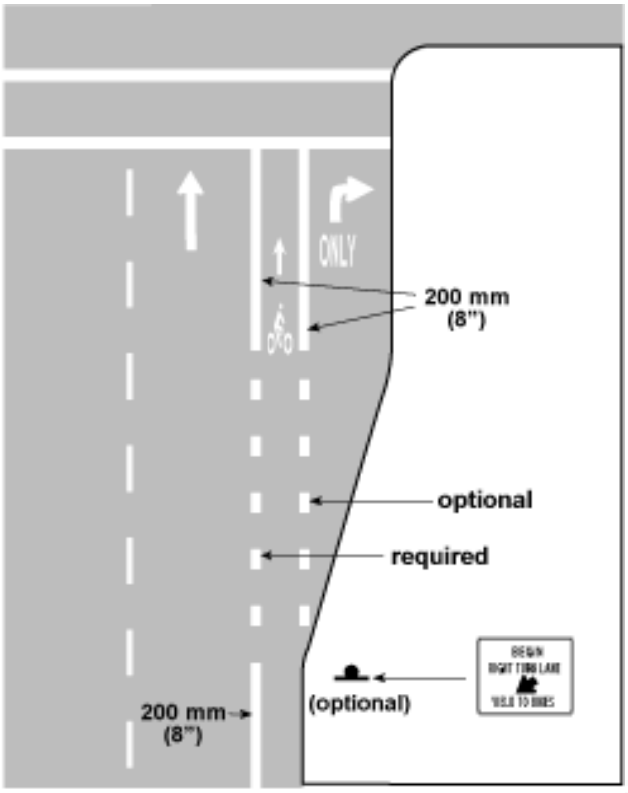
Research of the different types of bicycle trails and lanes showed there were two very different types of facilities that encompass all types of bicycle facilities. The two types of facilities are off-road and on-road bicycle facilities. Below is a narrative description of each one of these types of facilities.

4.4H Type of Facilities

The Bicycle Trail

Bicycle trails are generally located on exclusive rights-of-way and with minimal cross flow by motor vehicles. While a connecting trail between two cul-de-sac streets can provide transportation bicyclists with a shortcut through a residential neighborhood, most bicyclists using bicycle trails enjoy recreational activities and do not generally use them for commuting purposes. When located in a park, a bicycle trail can provide a wide variety of users with a pleasant recreational experience. Bicycle trails can be located along abandoned railroad rights-of-way, the banks of rivers, and other similar corridors.

Bicycle trails should be thought of as extensions of the highway system intended for the exclusive use of non-motorized users such as bicyclists and pedestrians. It is very important for designers to remember that the bicycle is a moving vehicle and that close attention to accepted design criteria is necessary for the provision of appropriate and usable bicycle facilities. While there are many similarities between design criteria for bicycle trails and those for highways (e.g., in determining horizontal alignment, sight distance requirements and signing), some criteria (e.g., horizontal clearance requirements, grades and pavement structure) are dictated by operating characteristics substantially different from those of motor vehicles. The designer should always be conscious of the similarities and differences and how these influence the design of bicycle trails.



When considering the construction of an off-street bicycle facility such as a bicycle trail, the primary issue of concern is whether or not the route can provide faster and safer travel to and from a popular destination than an on-street route. Many creeks, abandoned railways, and active rail lines are situated to provide linkages to central business districts, schools, and other common bicycle and pedestrian destinations. Whenever is possible, these opportunities should be explored to provide increased bicycle and pedestrian mobility.

Two-way bicycle trails should be a minimum over 8', while a width of 10' is recommended. The minimum value should be used only where use is expected to be very low and few pedestrians are expected. Pedestrians tend to use bicycle trails as sidewalks which demands bicycle trails to be 10' wide as minimum recommendation.

Bicycle trails are intended for exclusive rights-of-way with minimal motor vehicle crossings. They are an extension of the street system designed for the exclusive use of non-motorized transportation just in the same way as freeways are intended for the exclusive or preferential use of motor vehicles. Sidewalks, adjacent to and part of the normal

highway right-of-way should be used for bicycle access only in very unusual circumstances. Only facilities or separated right-of-way is appropriate for the facility described in this section, the Bicycle trail.

The Bicycle Path

Bicycle paths are similar in nature to the bicycle trail but are located parallel and within the right of way of a roadway or other transportation facility (e.g., between a road and a railroad track or a drainage ditch). Bicycle paths have the same minimum width and separation from road requirements as a bicycle trail but special and careful consideration must be taken where they meet major intersections. Based on current research, bicycle paths should merge with the edge of the roadway to take advantage of the existing crosswalks where there are major intersections.

When two-way bicycle trails are located immediately adjacent to a roadway, there may be problems with the traffic operations. Providing a sidewalk for both pedestrian and bicycle use adjacent and parallel to a roadway is not recommended for a variety of reasons such as:

- Sidewalks are typically designed for pedestrians. Therefore, they are not safe for higher speed bicycle use.
- Conflicts are common between bicyclists and pedestrians traveling at low speeds, as are conflicts between bicyclists and fixed objects such as poles, and trash cans.
- Walkers, joggers, skateboarder and roller skaters can and often do change their speed and direction almost instantaneously, leaving bicyclists insufficient time to react to avoid collisions. Similarly, pedestrians often have difficulty predicting the direction an oncoming bicyclist will take.

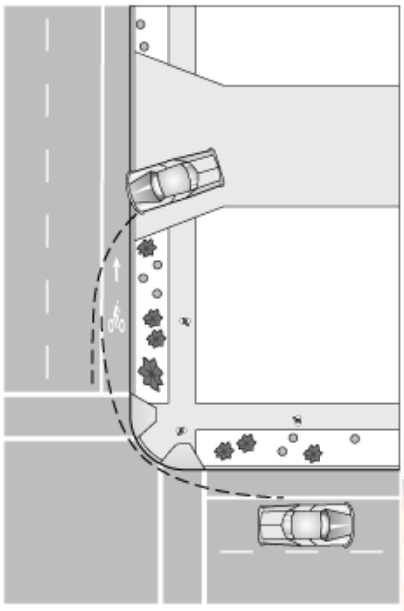
- At intersections, motorists are often not looking for fast-moving bicyclists entering the crosswalk area, particularly when motorists are making a turn. Sight distance is often impaired by buildings, walls, property fences and shrubs along sidewalks, and especially at driveways.

Very young bicyclists riding on sidewalks in residential areas can be expected. With the lower bicycle speeds and lower motor vehicle speeds characteristic of residential areas, potential conflicts are lessened somewhat, but still exist. This type of sidewalk bicycle use by very young children is generally accepted, but it is inappropriate to sign a sidewalk as a bicycle path or bicycle route. It is important to recognize that the development of extremely wide sidewalks does not necessarily add to the safety of sidewalk bicycle travel. A wide sidewalk encourages

higher-speed bicycle use and can increase the potential for conflicts with motor vehicles and intersections, as well as with pedestrians and fixed objects.

On-Road Bicycle Facilities

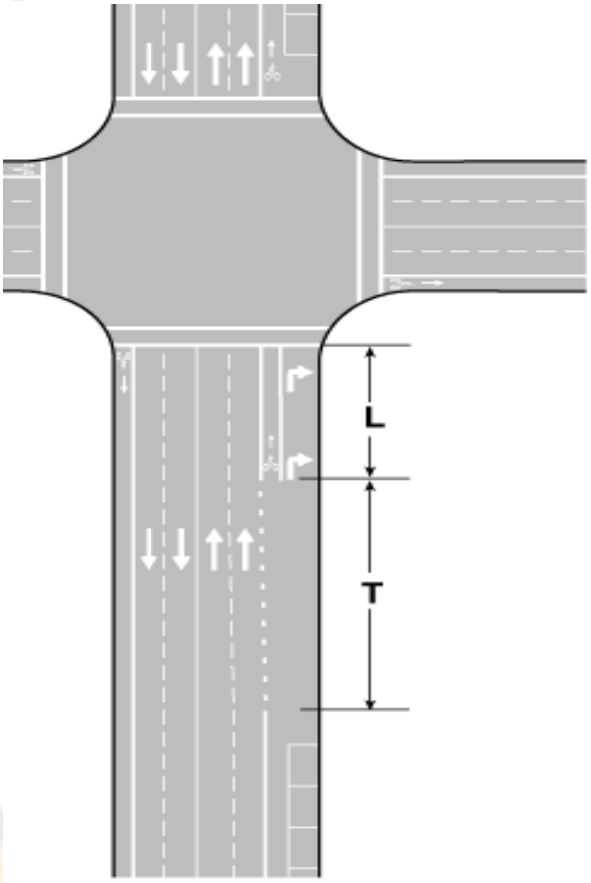
Bicycles are legally recognized in the State of Texas as vehicles and will be ridden on all highways were they are permitted. Except where bicyclists are legally prohibited, all new or expanded roadways should be designed and constructed under the assumption that they will be used by bicyclists. Bicycle-safe design practices should be followed to avoid costly retrofit improvements. Roadway conditions should be examined and, where necessary, improvements such as safe drainage grates, smooth railroad crossings, and smooth pavements.



There are two primary types of on-road bicycle facilities, the wide outside and the exclusive bicycle lane. Even though the emergency shoulder is not a designated bicycle facility, it also works as a bicycle lane when parking is prohibited. The two major on road bicycle facilities differ in several ways. Current state and federal research suggest constructing wide outside lanes on all roadways, while selecting a sub-network of streets to receive bicycle lane designation. While bicycle lanes have not been shown to decrease accident rates, they tend to create a perception of increased safety for less experienced bicyclists while creating a greater awareness by the motorized vehicle drivers.

Wide Outside Lane

The desirable motor vehicle width is 12'. The additional width on the outside lane also improves sight distances and provides more maneuvering room for vehicles turning onto the roadway. In many cases where there is a wide outside lane, motorists will not need to change lanes to pass a bicyclist. Thus, on roadways with bicycle traffic, widening the outside lane can have a beneficial effect on capacity. Bicyclists utilizing a wide outside lane are obligated to follow the direction of traffic on either side at all times.



L = Storage length required for right turns
T = Taper length needed for motorists to merge right (to be calculated based on standard right-turn configuration)

On roadways that accommodate both bicycles and motor vehicles within the travel lanes, 14' of usable width should be provided in the outside through lanes. Studies have shown that any additional width to the normal 12' or outside through lanes is beneficial for bicyclists and motorists alike. In determining the usable width of an outside lane, adjustments need to be made for obstructions. Bicyclists normally stay away from obstructions such as drainage grates, parked vehicles and longitudinal ridges between the pavement and gutter sections. An extra 1' of "shy distance" should be added for flush or depressed obstructions, such as a joint or soft shoulder. If a raised obstruction, such as a curb or gutter, is present, an extra 2' "shy distance" should be added to the raised face of the curb. If drainage grates are located in the gutter or near the right edge of the roadway, they should be included in the calculations of usable width.

Some experts have recommended 15' of usable width for an actual "wide outside through lane." However, widths greater than 14' could encourage the operation of two motor vehicles in one lane. This is likely to occur near intersections with heavy turn volumes during periods of peak congestion. Such conditions may reflect a need to consider improvements at the intersections of wider than 14' wide outside lanes. At intersections with separate right-turn lanes or bays, the outside through lane should be widened to accommodate bicycles.

The additional width for wide outside lanes to accommodate bicycle traffic should be introduced by widening the roadway pavement. However, on multi-lane roadway sections, if the outside lane width cannot be increased by widening the pavement due to right-of-way limitations or cost, the lane striping may be shifted to narrow the inside lane(s) while widening the outside lane.

No inside lane width should be reduced to less than 11' can reduce the lane's capacity up to 5 percent. When considering this approach, the volume of truck traffic should be taken into

account. In general, 11' lanes should not be considered if the truck volumes are greater than 5 percent of the total traffic volume.

The Bicycle Lane

Bicycle lanes may be considered when it is desirable to delineate available road space for preferential use of bicyclists. Bicycle lanes should always be one-way facilities and carry traffic in the same direction as adjacent motor vehicle traffic. Two-way bicycle lanes on one side of the roadway are unacceptable because they promote riding against the flow of motor vehicles traffic, a primary cause of many fatal bicycle/car crashes. Wrong way riding violates the rules of the road under Texas traffic laws. Bicycle lanes on one-way streets should be on the right side of the street. Bicycle lanes are preferred to wide outside lanes by less experienced or recreational bicyclists due to the bicyclist's perception of increased safety related to these facilities. The pavement striping and signs associated with a bicycle lane seem to justify the presence of these bicyclists. It is suggested, therefore, that a sub-network of streets be selected for the designation of bicycle lanes. The street types selected for this treatment will vary from one municipality or region to the other. Currently, many cyclists use the same mental maps automobile drivers use.

This means that the businesses, shops, or office complexes located along the arterial generate bicycle traffic, just as they generate auto traffic. For the commuting bicyclist, direct routes with minimum delays are desirable.

Segments of roadways with significant volumes of right-turning traffic or a significant number of commercial driveways make unsuitable locations for bicycle lanes. In such cases, wide curb lanes may be more appropriate. Also, high volume multi-lane highways with numerous grade-separated interchanges, or multi-lane roadways with continuous center-turn lanes and high volumes of motor vehicles make les suitable roads for bicycle lanes.

Bicycle lanes should be marked with solid white lines. Raised markers should not be used, as these are hazard for bicyclists. Bicycle lanes should be a minimum of 4-inch width in each side of the lane to the joint between the roadway and concrete gutter pan. On

concrete roadways with a monolithic pavement and gutter design, the width should be increased to 5' to accommodate shy distance from the curb.

Pedestrian

Since the passage of the Transportation Equity Act for the 21st Century (TEA-21) in 1998 and Intermodal Surface Transportation Equity Act (ISTEA) in 1991, many MPO's have included bicycle and pedestrian facilities in their long-range plans to encourage the use of these modes of transportation as a means of daily travel. After the passage of the TEA 21, MPOs became responsible for upgrading and improving the connections of the different modes of transportation within our metropolitan area in order to maximize the mobility of people and goods with minimal energy consumption, air and water pollution, and social impacts.

Pedestrian travel is the most basic form of transportation. Even though, it has diminished as a preferred way to get from one place to another over the past century (as other modes of travel have emerged). Roadway transportation networks and the resulting land use development have impacted pedestrian travel. Typically, access to employment, goods, services, and recreational activities are more convenient using automobiles. Regardless of the selected method of travel (car, bus, rail), we must rely on pedestrian mobility for at least some part of each trip. Pedestrian facilities must be an integral part of the transportation system, as they are necessary to safely and efficiently accommodate pedestrian mobility for necessary trips and provide access to other modes of travel.

After the issuance of ISTEA, the MPOs were obligated to study and plan for all modes of transportation during the transportation planning process. One of the modes of transportation the MPO is mandated to study and plan for its bicycling as a method of commuting to work, schools or shopping, and for recreational purposes. An increase on the usage of bicycles would ultimately decrease the dependency on automobiles for transportation needs while lowering air pollution and congestion levels throughout the metropolitan area. The use of bicycles for transportation or recreational purposes also promotes exercising and good health for the citizens of Hidalgo County.

The Hidalgo County MPO envisions developing a truly balanced transportation system which includes both motorized and non-motorized modal elements. Bicycling and walking

should be viable mode choices for citizens for Hidalgo County. A safe, convenient, pleasurable and continuous system should be available for commuters and recreational cyclists and walkers. In the 2035 MTP, more emphasis is placed on sharing the road and promoting the integration of both cars and bicycles along the same roadway systems. Local and regional municipalities will be urged to include bicycle and pedestrian facilities in their future plans. Pedestrian and bicycle programs alone will not solve the congestion problems in any particular corridor, but they will help the region satisfy TEA-21 requirements.

4.4I Conclusion

The current Hidalgo County Thoroughfare Plan was carefully studied by the MPO to determine where bicycle lanes and wide paved shoulders could be allocated on future designated roadways, and once the updates to the Hidalgo County Thoroughfare Plan is approved, the Thoroughfare Plan will be carefully studied.

After thorough and careful designations of bicycle corridors with the participation of cities and the involvement of the public, the MPO will overlap the metropolitan Multi Modal Plan over the Hidalgo County Thoroughfare Plan, which is in the process of getting updated. With the Metropolitan Bicycle Plan, the MPO will request implementing agencies to place shoulders or bicycle lanes on both sides of the road, prohibit parking on the shoulders and request placement of bicycle route signs in all the designated bicycle corridors as these roads get expanded or reconstructed in the future. Where shoulders exist on both sides of the road in designated corridors, the MPO will ask the different cities to prohibit parking and place bicycle route signs throughout them. With the adopted bicycle plan, the MPO will also try to replace the existence of one shoulder in designated bicycle corridors with a bicycle lane on each side of the road by simply re-striping the road. The designated and implementation of bicycle corridors plan of action would enable bicyclists to travel from any major destination throughout the County to go to school, to shop, or to go to work in a safe manner along the designated roads in the future. This will ensure that a provision for bicycle facilities is included in all designated roadways for not only this area, but to be able to connect to our neighboring Cameron County. For the long term goal, is to have connectivity between both counties to facilitate bike rider's easy access to their destination.

4.5 International Border Crossing Element

4.5A Impacts of NAFTA

International border crossings have increased tremendously along the Texas border after the implementation of NAFTA (North American Free Trade Agreement) in January 1994.

This agreement removed most barriers to trade and investment among the United States, Canada, and Mexico. Under NAFTA, all non-tariff barriers to agricultural trade between the United States and Mexico were eliminated. In addition, many tariffs were eliminated immediately, with others being phased out over periods of 5 to 15 years. This allowed for an orderly adjustment to free trade with Mexico, with full implementation beginning January 1, 2008.

The manufacturing sector has seen a remarkable increase in growth after the implementation of NAFTA. The region has experienced faster economic growth than any other border town between US and Mexico. Of all the trade between the two nations, 12.8 percent comes through this region. According to the U.S. Department of Commerce-Bureau of Economic Analysis, out of $148.4 billion of trade that cross through the South Texas border, 38.5% crosses through the Rio Grande Valley.

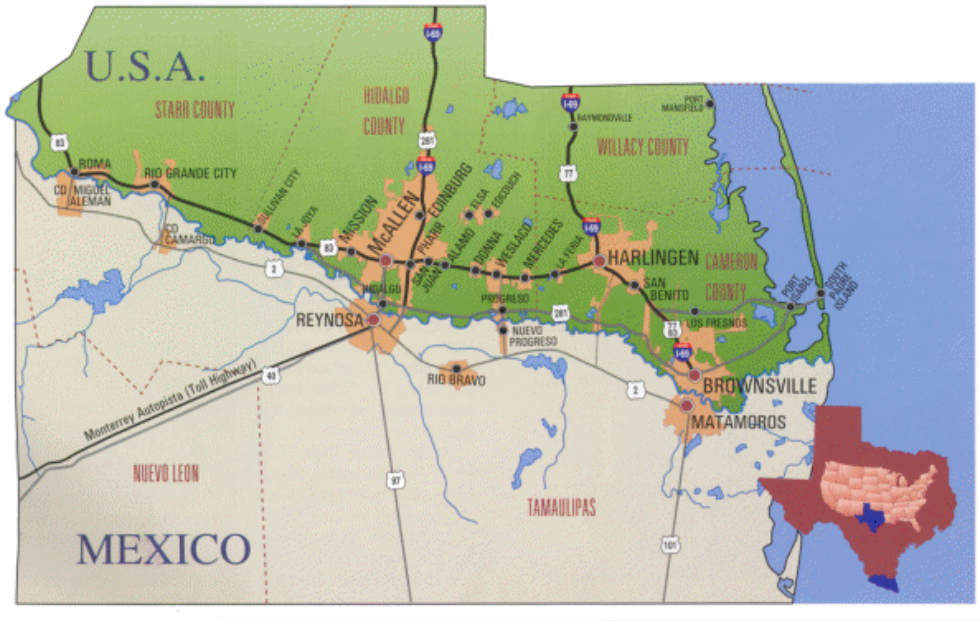
Since the implementation of NAFTA, a surge of maquiladoras have become more prevalent in the region. Maquiladoras are Mexican factories that take in imported raw materials and produce goods for export. These plants, upon moving from the United States, have benefited from the free trade agreement and allowed for the rapid growth of non-border metropolitan areas in Mexico, such as Toluca, León and Puebla. One can primarily see the manufacturing facilities of maquiladoras on the Mexican side of the border and warehousing facilities for goods produced on the American side. The maquiladoras have seen great success as they take advantage of the large labor supply, lower wages and less investment on raw materials.

Currently, there are around 3,000 maquiladoras on the United States-Mexico border with over one million workers. Well established Fortune 500 companies such as General Electric, General Motors, TRW, Black & Decker, Bissell, Whirlpool and Maytag are among the few companies cutting production costs by utilizing the maquiladora type programs.

Because of the growing population due to the manufacturing plants, border cities are acting as foreign trade zones or "free ports" that are regulated by the U.S. Customs. Raw materials and/or finished goods may be brought into the zone from another country duty-free and then may be stored, assembled, repackaged, graded, manufactured, or re-exported without payment of U.S. Customs duties. This arrangement has also prompted an increase in the border traffic in Texas, primarily with trucks.

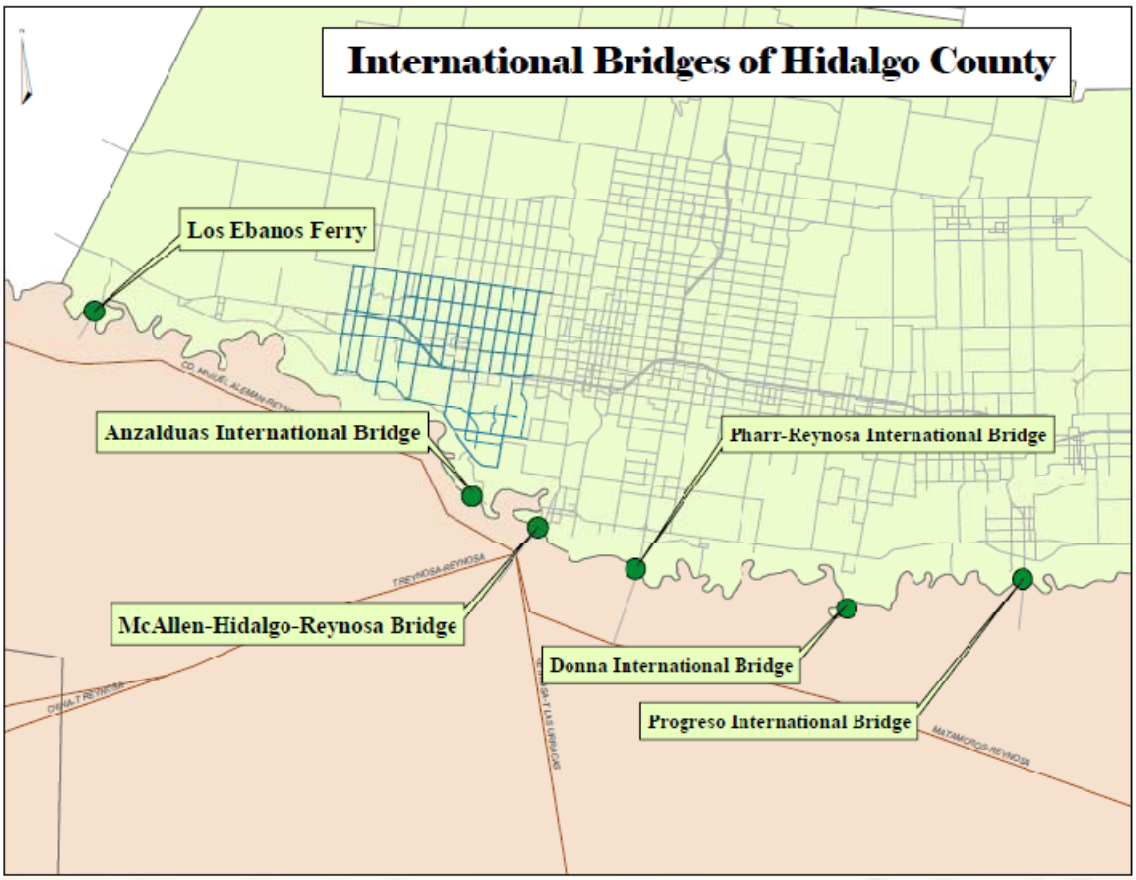
With the rapid growth of maquiladoras in the region, the need for better transportation infrastructure for goods to go across, and easy routes for access to the border towns is important. As shown in *Figure 4.5.1*, International Bridges and roads to and from the United States and Mexico have helped facilitate the needs of both countries.

Figure 4.5.1: Border cities between Texas and Mexico



Within the Hidalgo County MPO boundaries, there are currently three operational bridges and two upcoming bridges connecting the two countries. The Anzalduas International Bridge is set to be completed in June 2009 and the Donna International Bridge is also set to be completed sometime in 2009. *Figure 4.5.2* shows their geographic locations in the following map.

Fig 4.5.2: Operating and Soon to Open International Bridges in Hidalgo County



4.5B Existing Structures

The HCMPO currently has three existing international bridges: McAllen-Hidalgo-Reynosa International Bridge, Pharr-Reynosa International Bridge and Progreso-Nuevo Progreso International Bridge. There is also an old existing structure known as the Los Ebanos International ferry crossing. This is a hand drawn ferry operating on either border crossing on the Rio Grande River. This ferry is more of a tourist attraction than an economically viable crossing. The ferry was constructed of wood and could accommodate a maximum of two vehicles or one large vehicle until the mid 80's when it was reconstructed out of steel and can now accommodate up to three vehicles.

Los Ebanos International Ferry Crossing

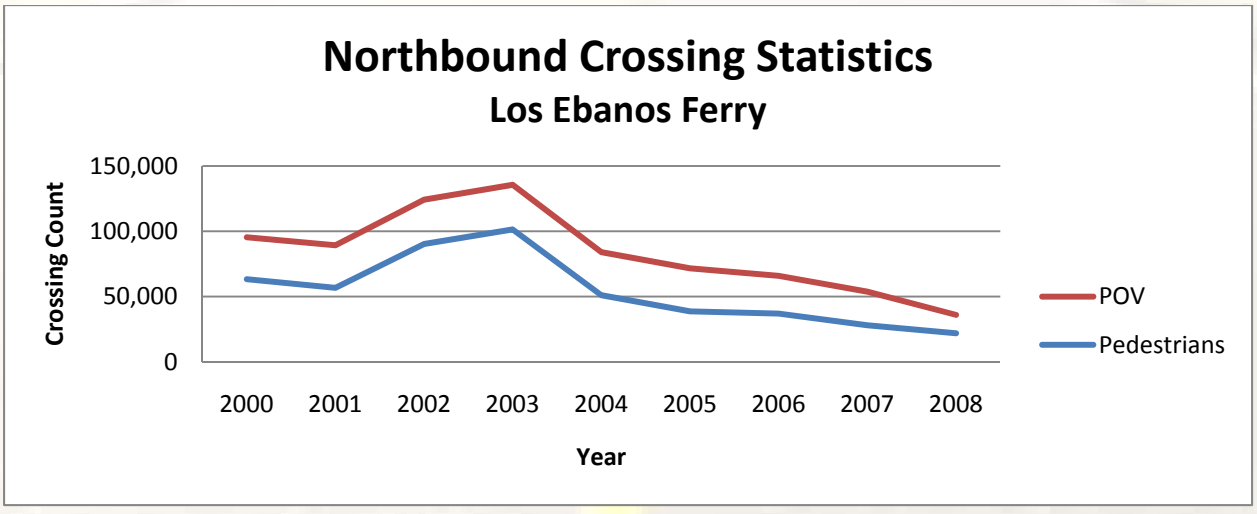
The Los Ebanos Ferry, also known locally as Los Ebanos-San Miguel Camargo, Ferry Gustavo Díaz Ordaz and Ferry Díaz Ordaz-Los Ebanos is a popular tourist attraction since it is the only remaining hand-pulled ferry on the U.S.-Mexico border. It is located at the crossing point between Los Ebanos, Texas and Ciudad Gustavo Díaz Ordaz, Tamaulipas and can accommodate only three cars and 12 pedestrians at one time. The ferry is pulled across by six men, during the hours of 8 a.m. and 4 p.m. for a fee of $5.

Although the crossing has been in operation since the 1950s, the current ferry has been operating since 1979. It was recognized with a state historical marker in 1975. Passenger numbers increase during the winter, as American tourists tend to travel to Texas during the winter season.

Since the Los Ebanos Ferry is primarily a tourist attractor, the traffic on this bridge is tracked by private owned vehicles (POV) and pedestrians.

The graph in Figure 4.5.3 shows the northbound traffic at the Los Ebanos International Bridge. After a sharp increase in 2003, crossings of vehicles and pedestrians have continued to decline.

Figure 4.5.3: Northbound Crossing Data FY 2000-2008: Los Ebanos Ferry



McAllen- Hidalgo-Reynosa International Bridge

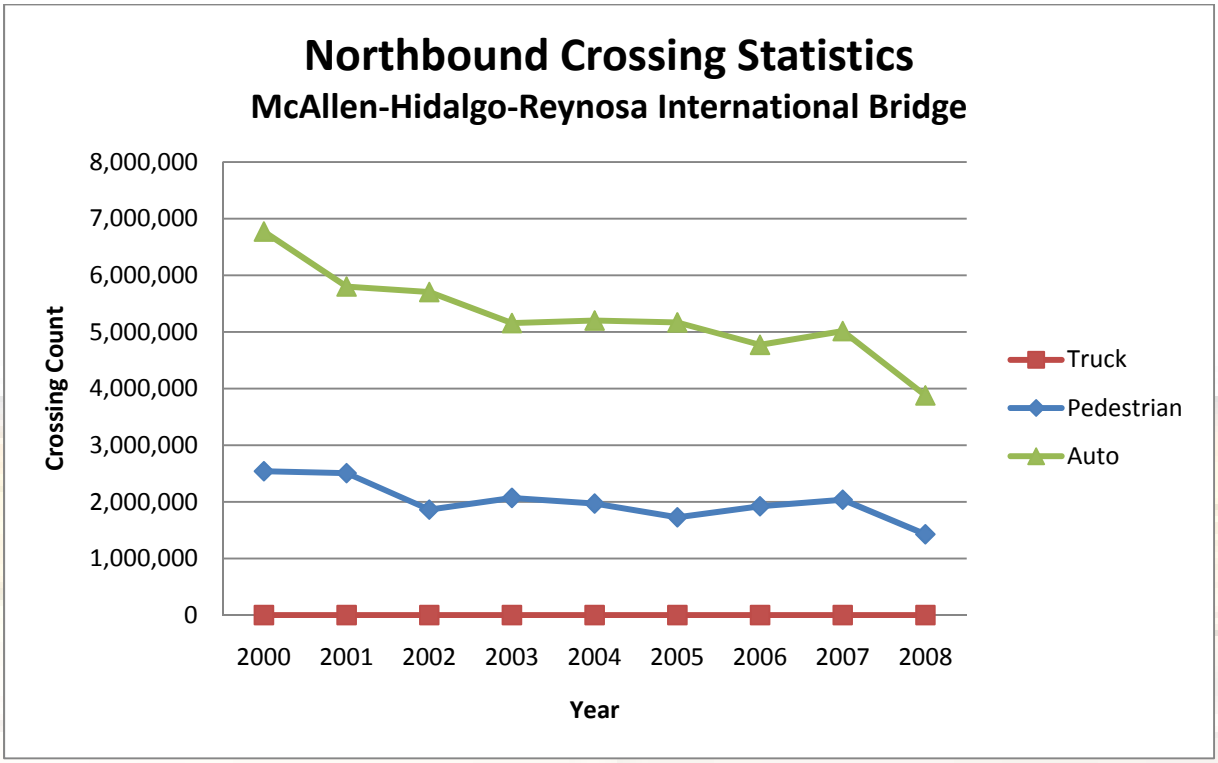
The City of Hidalgo sits on the bank of the Rio Grande River clearly separating Texas from Mexico. The McAllen-Hidalgo-Reynosa International Bridge connects the two cities, McAllen (Texas) on the United States side and Reynosa (Tamaulipas) on the Mexico border.

The McAllen-Hidalgo-Reynosa International Bridge is the fourth busiest border crossings in the U.S. and as a result, the surrounding area has established itself as a highly developed prime retail and commercial area. The McAllen-Hidalgo-Reynosa area has furthermore established itself as a leading border industrial zone that serves to facilitate trade between Mexico and United States.

This crossing includes two bridges. The old, four-lane bridge serves only southbound traffic and the new, four-lane bridge serves only northbound traffic. Beginning September 1, 1996, all northbound commercial vehicles were directed from this crossing to the Pharr-Reynosa International Bridge. Southbound commercial vehicles are permitted to use either the McAllen-Hidalgo-Reynosa Bridge or the Pharr-Reynosa Bridge to enter Mexico. Many Americans go to Reynosa for authentic Mexican dining as well as a unique shopping experience that is friendly to the checkbook. There are several markets that one can bargain for anything from fresh fruits and vegetables to children's toys. Many Mexican citizens often cross into the United States to shop in McAllen, one of the leading retail trade areas in the region.

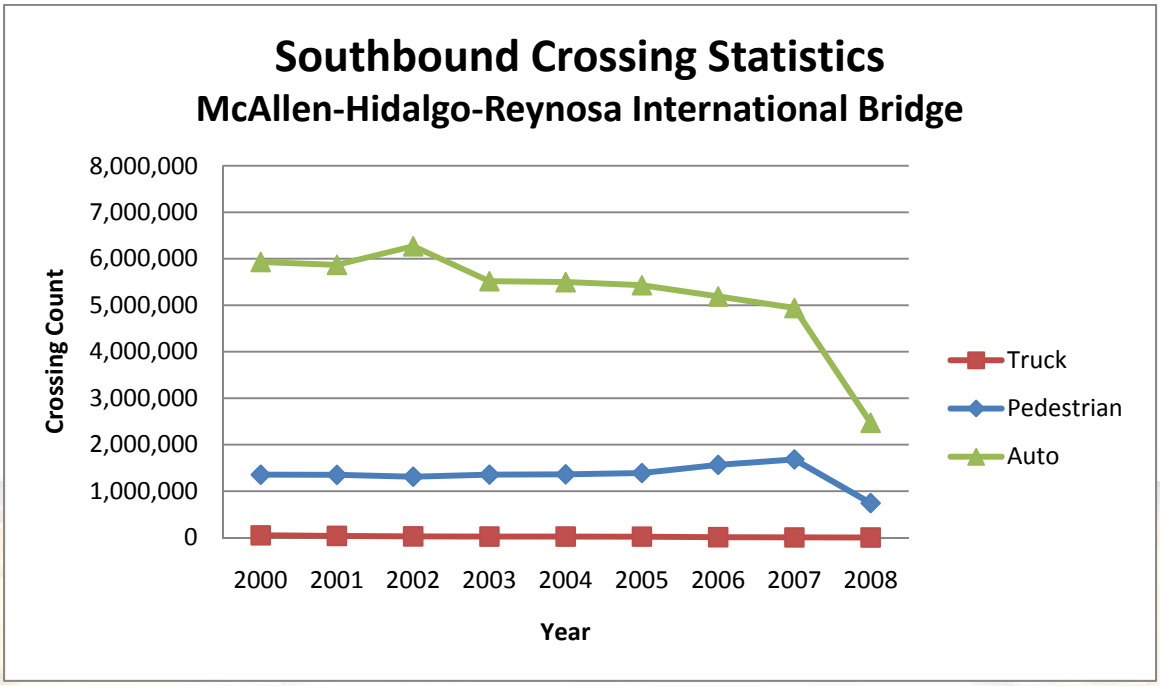
On the northbound side there is a significant decrease in traffic in automobiles and pedestrians. The truck traffic remains at nil for each year as this bridge is closed to commercial trucks. Much of the traffic from this International Bridge has been diverted to the Pharr International Bridge and since it is more efficient, many opt to utilize it more often.

Figure 4.5.5: Northbound Crossing Data FY 2000-2008: McAllen – Hidalgo – Reynosa International Bridge



On the southbound side the truck traffic has decreased significantly, from roughly 49,000 trucks in 2000 to a mere 2,400 in 2008. Further decreases in traffic throughout the years is also due to intense security measures that were implemented after the 9/11 terrorist attacks. Years after 9/11, the U.S. economy has been on a steady decline and corruption has become an increasing trend. Fears of crime, drug wars and corruption have further stunted the traffic going into Mexico.

Figure 4.5.5: Southbound Crossing Data FY 2000-2008: McAllen – Hidalgo – Reynosa International Bridge



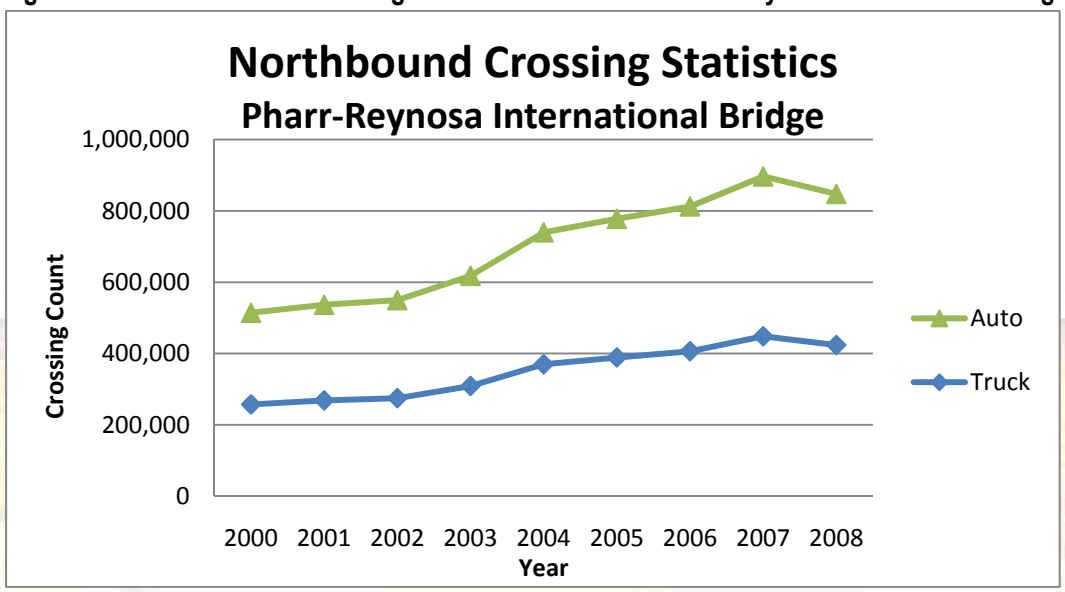
Pharr-Reynosa International Bridge

The Pharr-Reynosa International Bridge is a modern, state-of-art facility that opened in 1994. The bridge is 3.1 mile long and is elevated to protect surrounding wetlands and farmlands. The facility is used for vehicular, pedestrian and commercial crossing with four inbound vehicle lanes and ten outbound toll lanes. It was built to relieve congestion on the McAllen/Hidalgo-Reynosa Bridge specifically commercial traffic congestion that negatively impacts the downtown area of Reynosa. Access to the Pharr-Reynosa International Bridge is provided directly from US 281 in the United States. In Mexico, there is a direct connector road from the Pharr-Reynosa International Bridge to Mexico's highway 2, which connects Reynosa to Matamoros and provides access to the Reynosa airport. These roads allow traffic using the Pharr-Reynosa International Bridge to bypass the heavily urbanized areas of McAllen, Hidalgo and Reynosa.

The Pharr International Bridge handles almost all commercial truck traffic moving north between Harlingen and Laredo. Since this four-lane bridge is primarily used for commercial purposes, operating hours begin at 6:00 a.m. and thereafter, the bridge closes at 9:00 p.m.

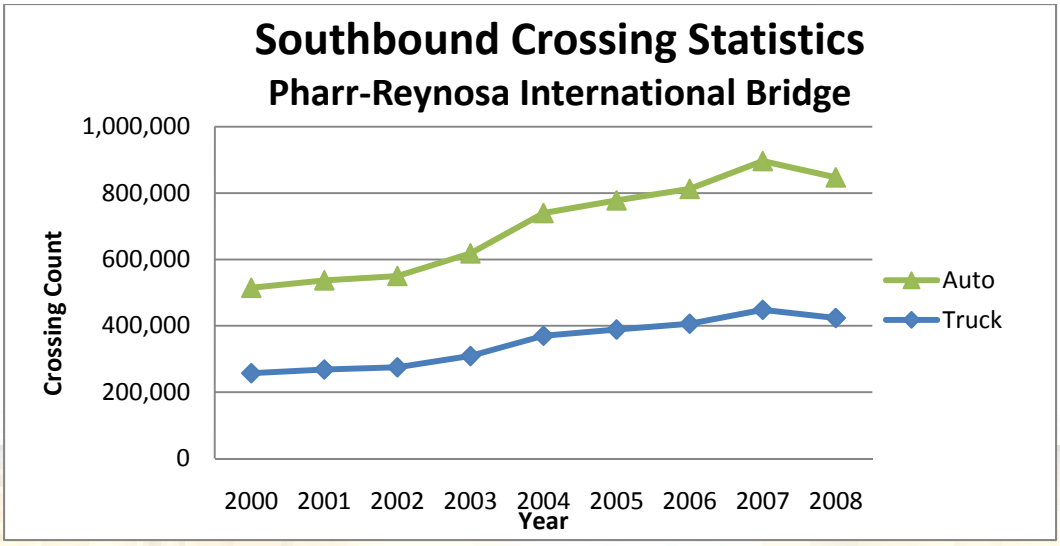
On the northbound side, an increase in commercial truck traffic has occurred as trucks were rerouted from the McAllen-Hidalgo-Reynosa International Bridge. This bridge has shown an increase in traffic for the majority of the years but due to the economy, the last few years have taken a down turn. It is very likely that in the future years, as the economy gets back on its feet, imports and exports between the United States and Mexico will begin increase the traffic once more.

Figure 4.5.6: Northbound Crossing Data FY 2000-2008: Pharr – Reynosa International Bridge



On the southbound side, vehicles and trucks have increased throughout the years. Most of the traffic coming in from the Pharr International Bridge carries much of the traffic passing through the Rio Grande Valley. The declining economy, beginning in 2007, has affected much of the goods coming into the United States and Canada. With a significantly less spending power that before, there is less freight and automobiles that pass through the Pharr-Reynosa International Bridge facility.

Figure 4.5.7: Southbound Crossing Data FY 2000-2008: Pharr – Reynosa International Bridge



Progreso - Nuevo Progreso International Bridge

The Progreso - Nuevo Progreso International Bridge on the U.S.–Mexico border, has been in operation at since 1952. It connects the cities of Progreso Lakes, Texas, and Nuevo Progreso, Tamaulipas.

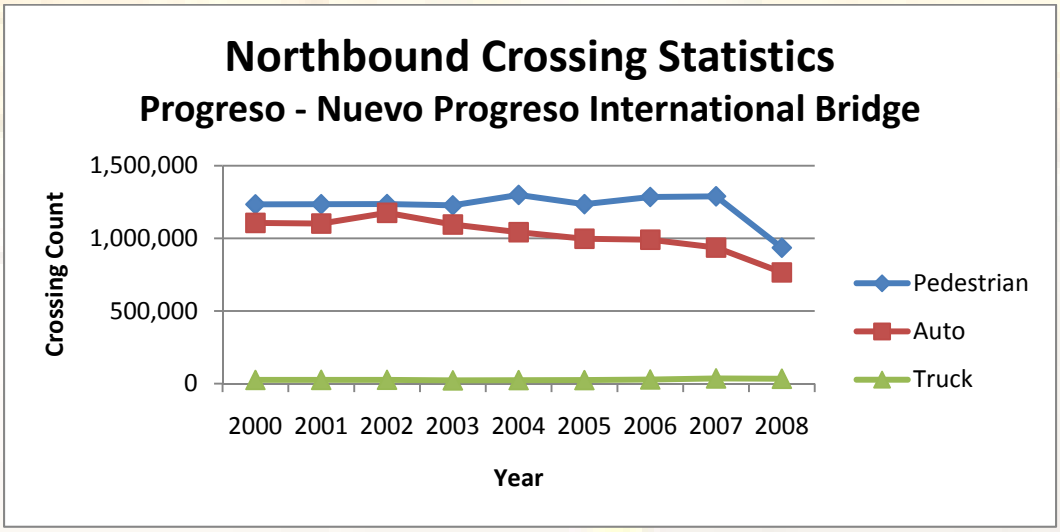
During the first years of operation the bridge had relatively low crossings of pedestrians, automobile, and commercial traffic. Beginning in the 1970s, an increase in all three categories of crossing was seen. In 1981 Cargill, Inc. constructed a grain elevator at this bridge for the exportation of corn and grain to Mexico. This exportation of agriculture products continued to grow to the point that four grain elevators are now exporting agriculture products to Mexico. The last phase of construction of the Progresso International Bridge made broader, covered walkways on the northbound and southbound side.

Land adjacent to the crossing in the United States is dedicated to grain shippers and border crossing expansion. The southbound area near the tollbooth entrance currently serves as a parking lot for tourists walking across the bridge into Nuevo Progreso. Nuevo Progreso is a big tourist attractor as the abundance of stores carrying traditional Mexican goods, pharmacies, dentists, cosmetic treatment centers and liquor stores are present.

This bridge is by far one of the most pleasurable to cross, as crossing it is efficient and safe. With the signing of the North American Free Trade Agreement (NAFTA), a substantial increase in commercial traffic in both directions has developed. As years have progressed, the bridge has continued to exceed traffic expectations.

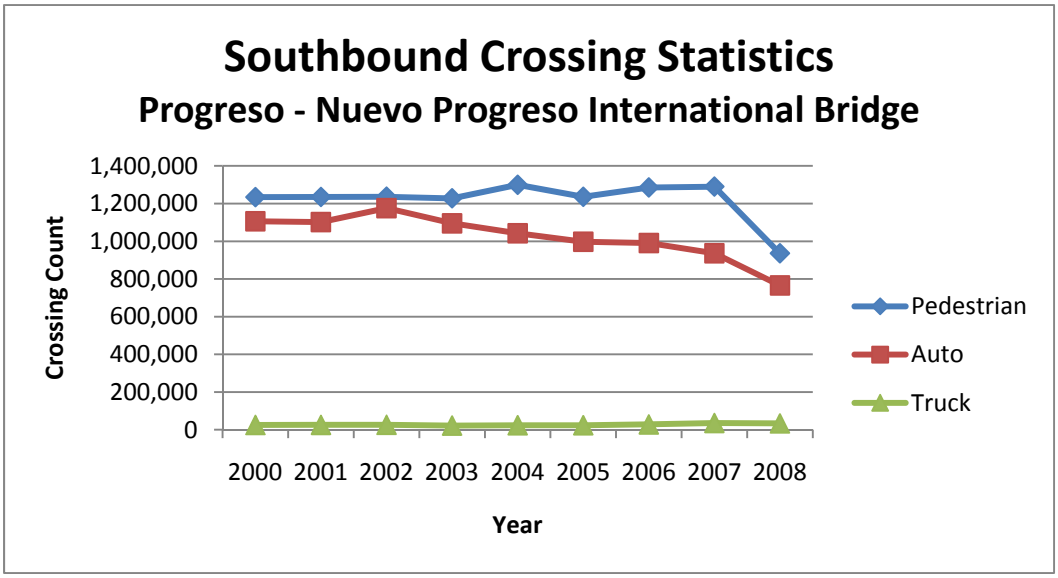
On the northbound side, the truck traffic volume on this bridge is negligible in the earlier years but has begun to increase slowly in years forthcoming. The number of pedestrians has increased also, possibly due to the ease of simply walking across to each country. There are an increasingly lower number of automobiles crossing this bridge seen in the past few years. This decrease is attributed to the slightly longer waiting times due to more commercial trucks using this bridge as well as the convenience of simply just walking across. In the last two years, a decrease in all modes has been seen which most probably is due to the decline in the state of the United States' and Mexican economy.

Figure 4.5.8: Northbound Crossing Data FY 2000-2008: Progreso - Nuevo Progreso International Bridge



On the southbound side, the crossing patterns and traffic are almost identical to northbound trends.

Figure 4.5.9: Southbound Crossing Data FY 2000-2008: Progreso - Nuevo Progreso International Bridge



4.5C Traffic Flow

Statistics of traffic flow on the International POEs (Port of Entry) are collected by the U.S. Customs and Border Protection and reported on a monthly basis. The Bureau of Transportation Statistics (BTS) manages a database on several statistics, which are made available to the public. In the tables shown below (Table 4.5c.1 and 4.5c.2), statistics are given for northbound and southbound traffic at each of the POEs in the Hidalgo County. These statistics show truck, private owned vehicles and pedestrian counts from Year 2000 to Year 2008.

Table 4.5a: Northbound Statistics for International Bridges in Hidalgo County

Hidalgo	2000	2001	2002	2003	2004	2005	2006	2007	2008
Private Owned Vehicles	6,772,907	5,802,059	5,704,586	5,156,387	5,105,112	5,168,341	4,772,472	5,015,813	3,878,968
Truck	0	0	0	0	0	0	0	0	0
Pedestrian	2,540,810	2,506,876	1,861,923	2,069,885	2,004,838	1,727,701	1,922,109	2,038,149	1,427,248

Pharr	2000	2001	2002	2003	2004	2005	2006	2007	2008
Private Owned Vehicles	2,174,479	1,958,809	2,245,288	2,188,233	2,041,627	1,180,505	1,707,995	1,819,592	1,290,705
Truck	367,217	367,991	387,157	395,785	448,194	483,889	457,825	486,756	368,977
Pedestrian	31,566	40,043	50,501	46,807	46,783	48,488	93,944	132,518	81,053

Progreso	2000	2001	2002	2003	2004	2005	2006	2007	2008
Private Owned Vehicles	1,094,490	1,130,740	1,203,577	1,137,554	1,159,131	1,003,789	1,010,676	983,007	643,325
Truck	0	0	0	0	0	0	0	0	0
Pedestrian	1,284,502	1,259,126	1,283,974	1,252,888	1,387,211	1,329,422	1,370,863	1,456,657	911,459

Los Ebanos	2000	2001	2002	2003	2004	2005	2006	2007	2008
Private Owned Vehicles	32,053	32,570	33,845	34,196	30,676	32,935	28,980	25,742	14,089
Truck	0	0	0	0	0	0	0	0	0
Pedestrian	63,383	56,757	90,351	101,448	66,798	38,759	36,989	28,075	21,968

Table 4.5b: Total Northbound Crossings on International Bridges in Hidalgo County

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Private Owned Vehicles	10,073,929	8,924,178	9,187,296	8, 516,370	8,336,546	8,006,570	7,520,123	7,844,224	5,827,087
Truck	378,618	384,640	411,991	415,531	469,818	507,696	489,358	527,552	403,920
Pedestrian	3,920,261	3,862,802	3,286,749	3,471,028	3,505,630	3,144,370	3,423,905	3,655,399	2,441,728

Figure 4.5.10: Total Northbound Crossings on International Bridges in Hidalgo County

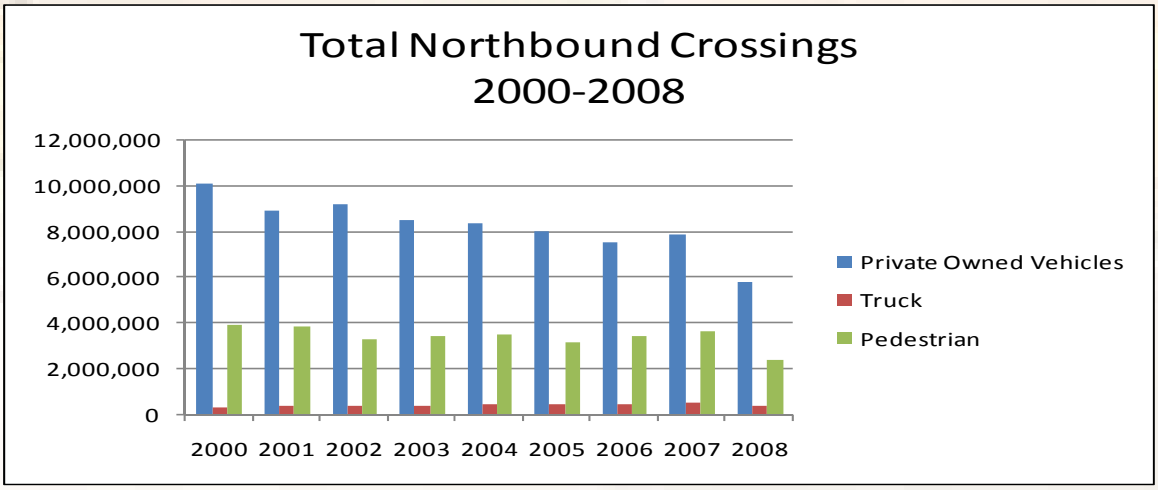


Table 4.5c: Percent Increase/Decrease of Modes FY 2000-2004 and FY 2004-2008 (Northbound)

	2000-2004	2004-2008
Private Owned Vehicles	-17.25%	-30.10%
Truck	24.09%	-14.03%
Pedestrian	-10.58%	-30.35%

Table 4.5d: Southbound Statistics for International Bridges in Hidalgo County

Hidalgo	2000	2001	2002	2003	2004	2005	2006	2007	2008
Private Owned Vehicles	5,936,341	6,018,004	6,126,568	5,700,317	5,503,287	5,430,365	5,188,916	4,941,153	2,470,457
Truck	49,043	39,378	29,111	25,698	20,754	20,949	10,115	4,567	2,454
Pedestrian	1,353,816	1,398,142	1,296,998	1,324,814	1,383,498	1,390,832	1,564,630	1,683,087	742,886

Pharr	2000	2001	2002	2003	2004	2005	2006	2007	2008
Private Owned Vehicles	1,862,682	1,821,736	1,806,253	1,768,576	1,785,564	1,700,493	1,767,275	1,685,309	1,464,617
Truck	247,038	260,887	271,260	294,736	359,320	388,973	406,304	448,318	423,751
Pedestrian	0	0	0	0	0	0	0	0	0

Progreso	2000	2001	2002	2003	2004	2005	2006	2007	2008
Private Owned Vehicles	1,123,032	1,129,105	1,139,451	1,125,981	1,155,939	997,298	990,861	936,477	765,697
Truck	25,707	25,817	26,298	22,848	25,538	23,964	28,233	35,629	33,486
Pedestrian	1,241,980	1,224,907	1,237,613	1,197,285	1,380,555	1,235,913	1,285,349	1,289,909	935,810

Table 4.5e: Total Southbound Crossings on International Bridges in Hidalgo County

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Private Owned Vehicles	8,922,055	8,968,845	9,072,272	8,594,874	8,444,790	8,128,156	7,947,052	7,562,939	4,700,771
Truck	321,788	326,082	326,669	343,282	405,612	433,886	444,652	488,514	459,691
Pedestrian	2,595,796	2,623,049	2,534,611	2,522,099	2,764,053	2,626,745	2,849,979	2,972,996	1,678,676

Figure 4.5.11: Total Southbound Crossings on International Bridges in Hidalgo County

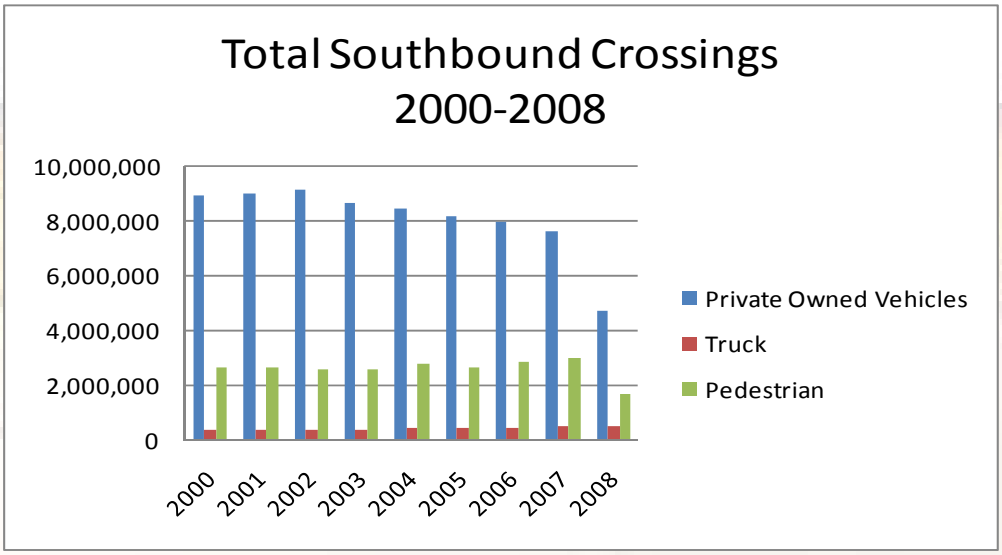


Table 4.5f: Percent Increase/Decrease of Modes in FY 2000-2004 and FY 2004-2008 (Southbound)

	2000-2004	2004-2008
Private Owned Vehicles	-5.35%	-44.34%
Truck	26.05%	13.33%
Pedestrian	6.48%	-39.27%

4.5D Interstate 69

Interstate 69 (I-69) is a major Interstate Highway in the United States that is intended to stretch from Canada, through the United States of America and down to Mexico. This highway is best described as a collection of many segments that are connected or being connected together in order to make a seamless corridor.

Currently, it exists in two parts, a completed highway from Indianapolis, Indiana, northeast to the Canadian border in Port Huron, Michigan, and a mostly-proposed extension southwest to the Mexican border in Texas. I-69 is nicknamed the "NAFTA Superhighway" because the corridor is foreseen as a major aide to facilitating trade with Canada and Mexico.

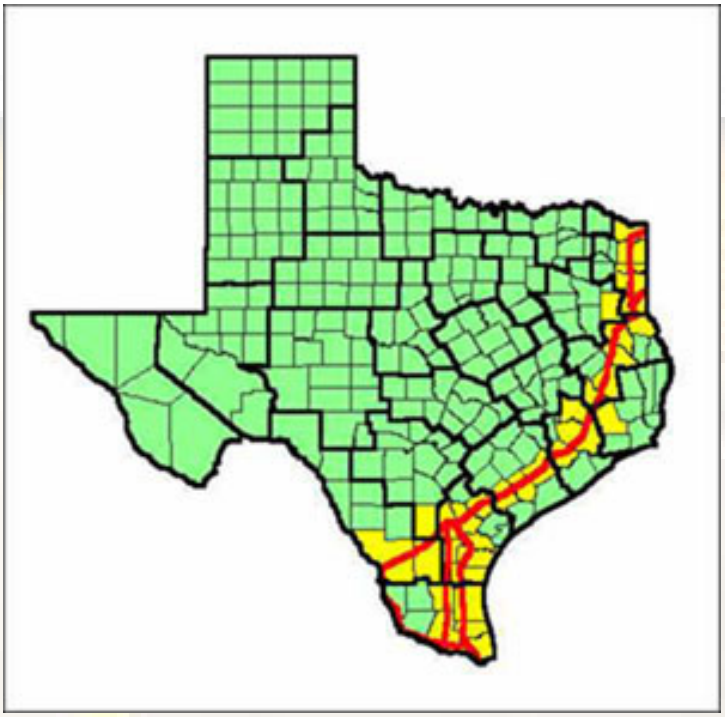
I-69, being an integral part of the "*High Priority Corridor*" 18 and 20, originated with the Intermodal Surface Transportation Efficiency Act of 1991(ISTEA) where the U.S. Congress designated corridors of national significance to be included in the National Highway System to receive federal funding. The I-69 project continued to be on the "High Priority Corridor" list with TEA-21 and SAFETEA-LU. Corridor 18 extends from Michigan and Illinois south through Indiana, Kentucky, Tennessee, Mississippi, Arkansas, Louisiana and terminating at the terminus of U.S. 77 and U.S. 281 in the Rio Grande Valley of Texas. Corridor 20 is designated as U.S. 59 from Texarkana to Laredo.

The corridor has been defined by Congress to extend from Port Huron, Michigan at the Canadian border, to the southern border connecting Mexico and Canada. This would make the shortest route between the industrial northeast and the South Texas border with Mexico.

Development of I-69 is said to improve international and interstate trade and help develop the surface transportation. I-69 would provide a continuous highway link designed to Interstate highway standards from the Mexican border to the Canadian border, totaling approximately 1,650 miles. Throughout its span, the I-69 would connect 16 existing Interstate highways crossing corridor 18 (10 east-west routes and 6 north-south routes), and it would also link 10 urban areas or more than 50,000 population along the corridor.

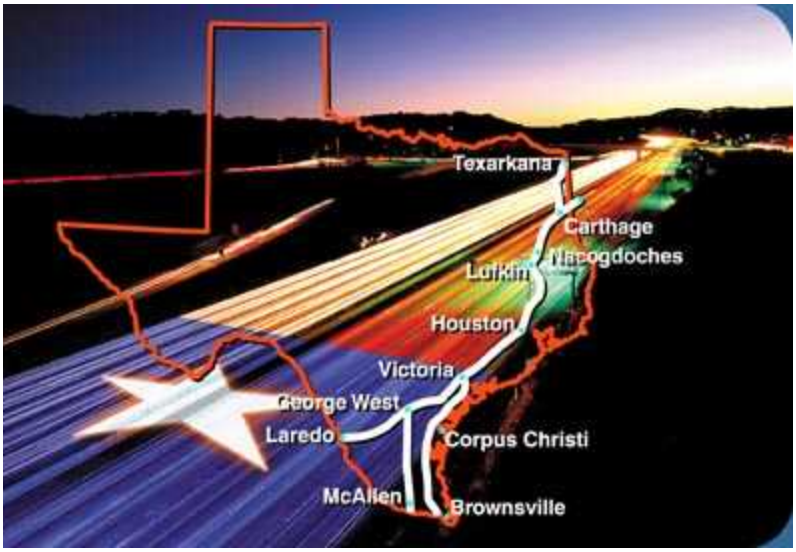
Within urban areas, development of I-69 could provide the means to upgrade existing Interstate routes, connect major transportation corridors and radial freeways with a new facility. About 63% of total U.S truck-borne trade with North America is through the I-69 corridor states and the states using I-69 and its borders crossing ports. Twenty-two of the United States' top 25 seaports are directly connected to I-69 and sixteen of the nation's top air cargo airports are readily accessible to I-69. The I-69 corridor states account for 51% of U.S. truck-borne trade with Mexico and 47% of U.S. truck-borne trade with Canada.

Interstate 69 in Texas



In Texas, I-69 planning has become part of the Trans-Texas Corridor (TTC) studies. This part of the TTC, called I-69/TTC, includes I-69 and all of its spurs authorized by Congress. It will extend from three border crossings, at Laredo, McAllen, and Brownsville, along US 59, US 281, and US 77 towards Victoria. After the three branches join, I-69 will continue along the general US 59 corridor past Houston to Carthage, where it will turn easterly to Louisiana. Around Houston, I-69 may use the Grand Parkway (SH 99) around the west side. A planned branch continues north on US 59 to Texarkana. Most of the proposed I-69 route in Texas already exists as 4-lane highways, with a lengthy freeway section stretching north and south of Houston along U.S. 59 and shorter freeway sections of U.S. 77, U.S. 83, and U.S. 281 in the Rio Grande Valley.

Trans-Texas Corridor



The Trans-Texas Corridor that characterized the Texas portion of the transportation network for I-69 originally envisioned would be composed of a 4,000-mile network of "supercorridors" to carry parallel links of toll ways, rails, and utility lines. It was intended to route long-distance traffic around population centers, and to provide stable corridors for future infrastructure improvements – such as new power lines from wind farms in West Texas to the cities in the east – without the otherwise often lengthy administrative and legal procedures required to build on privately owned land. The toll way portion would be divided into two separate elements, truck lanes and passenger vehicle lanes. Similarly, the rail lines in the corridor would be divided among freight, commuter, and high-speed rail.

The TTC was hoped to be a multi-use, state-wide system that would have included new and existing highways, railways, and utility rights-of-ways.

The original vision for the TTC, outlined in Crossroads of the Americas: Trans-Texas Corridor Plan, called for a corridor of up to 1,200 feet in width that would allow for several modes of transportation in addition to utility transmission facilities. Since the concept was publicly introduced in 2002, communities along the TTC-35 and I-69/TTC study areas have frequently voiced concerns over the corridor width, and viewed the idea as a one-size-fits-all concept, inappropriate for a state as diverse as Texas. In early 2009, TxDOT stated that due to the valid criticism of the project and its direction, the vision would no longer hold the title of the "Trans-Texas Corridor." The realization that Texas is unique in every area and region, with different goals and objectives of every community, made building a major corridor with a one size fits all concept would not work.

A different approach has been taken and major corridors will now be comprised of several smaller segments. These segment areas will have Corridor Segment Advisory Committees

that are involve citizens in the given segments that will work to design and build facilities that meets the needs of their particular region.

The I-69/TTC project has been split into 15 SIUs (Sections of Independent Utility[1]). SIUs 1 to 8 cover the main line along the "I-69 East" branch to Brownsville. The "I-69 Central" branch to McAllen is SIUs 9, 11, and 12. The branches to Texarkana and Laredo are SIUs 13 and 14, and two connections near Brownsville are SIUs 10 and 15. The Texas Department of Transportation (TxDOT) originally considered building the I-69/TTC over new terrain paralleling US-59, US-77, and US-281. Responding to widespread opposition from environmental groups and property rights activists, TxDOT announced in June 2008 that it will complete I-69 by upgrading the existing US-59, US-77, and US-281 roadways to Interstate standards through rural areas, with bypasses around urban centers along the route. Instead of building the Trans-Texas Corridor as originally planned, TxDOT now plans to finance upgrading the existing highways to I-69 through private sector investment. Under the proposed arrangement, I-69 would remain toll-free where it overlaps pre-existing highways, while bypasses of cities may have a toll. The private firms awarded contracts for I-69 will also build and operate toll roads throughout the state; some of those revenues would then be applied to I-69 construction.

The Pros and Cons of the "NAFTA Superhighway"

The "NAFTA Superhighway" initiative that has taken great strides throughout the years has met with much opposition and acceptance.

Opponents believe that I-69, by subsidizing trade between Canada, the U.S., Mexico, and Latin America; will further undercut jobs in the United States in favor of cheaper labor in Mexico and Latin America. The construction of I-69 has also angered environmentalists as many areas in the I-69 corridor run through wetlands, existing farmland, and forested areas, and cut through geologically sensitive terrain. Furthermore, many urban planners strongly believe the highway will require subsidies of up to $2 billion a year and will greatly increase the spread of suburban sprawl and automobile dependency at a time when oil prices continue to rise to unprecedented levels and the economy remains unstable.

[1] A section of a proposed highway that serves an independent purpose and would be useful without the remainder of the road being built

Proponents of the I-69 project look to many of the socio-economic benefits that will be provided by the corridor. It is expected to create more than 27,000 new jobs by 2025, resulting in $11 billion in additional wages and $19 billion in additional value. Furthermore, after determining in 2000 that I-69 corridor states have over nine million people living below the poverty, advocates of I-69 believe that the corridor will spur economic development in these regions. Overall, the I-69 corridor also goes through two of the nations Rural Empowerment Zones in the Rio Grande Valley in Texas and the Mid-Delta in Mississippi.

4.5E Homeland Security

The United States shares a 5,525 mile long border with Canada and 1,989 mile long border with Mexico. All people and goods that legally enter into the country must enter through an air, land or sea port of entry. Currently, 85% of daily commuters travel through land borders and a combined $2.35 trillion in imports and exports also exit the U.S. on a yearly basis. Due to the large exchange of people and goods at the nation's borders, the United States must implement a secure system to protect the country's borders from any type of national threat.

The increasing mobility and destructive potential of modern terrorism has required the United States to fundamentally rethink and rearrange its systems for border and transportation security. The Department of Homeland Security was introduced after the 9/11 attacks to protect the country from any kind of threat.

The *Department of Homeland Security* is one single entity that will manage and track who and what enters the United States. This activity is done in order to prevent the entry of terrorists and the instruments of terror, while facilitating the legal flow of people, goods and services efficiently on which our economy depends and thrives.

DHS and its partners conduct border-security functions abroad to the extent allowed by technology and international agreements. Federal law enforcement agencies take swift action against those who introduce contraband or violate terms of entry and pose threats to the American people. The U.S government works with the international community and the private sector to secure the transportation systems which link American communities to the world by moving people and goods across our borders and throughout the country.

Some of the major initiatives of Homeland Security are as follows:

- Ensure accountability in border and transportation
- Create "Smart borders"
- Increase the security of international shipping containers
- Implement the Aviation and Transportation security act of 2001
- Recapitalize the U.S Coast Guard
- Reform immigration services

The Department of Homeland Security works through certain agencies in the federal, state and the local level to prepare citizens for any kind of threat the country would have to face. DHS functions in different regions are as listed:

- ***Federal Agencies:*** The federal agencies that work for the Homeland security are U.S Customs, FBI (Federal Bureau of Investigation), Border Patrol and all branches of military.
- ***State Agencies*:** These agencies work in the state level to better serve the country and its people in distributing the funds to the local jurisdictions. The Department of Public Safety, State police, Texas Rangers and State Troopers work under this category. Some other special agencies such as *The Texas Association of Regional Council (TARC)* and *Texas Engineering Extension service (TEEX)* work for Homeland security in planning and distributing grants to the local jurisdictions.
- ***Local Agencies:*** Local agencies include entities that work with the counties and its jurisdictions, which conduct certain training programs on security and emergency preparedness. Police departments, fire departments and Emergency Management Services (EMS) in local areas are primary responders.

The council of governments in each state is responsible for granting the funds to the local jurisdictions. The Rio Grande Valley Development Council (LRGVDC) and Homeland security have collaborated with a wide range of agencies within the three counties of Cameron, Hidalgo and Willacy.

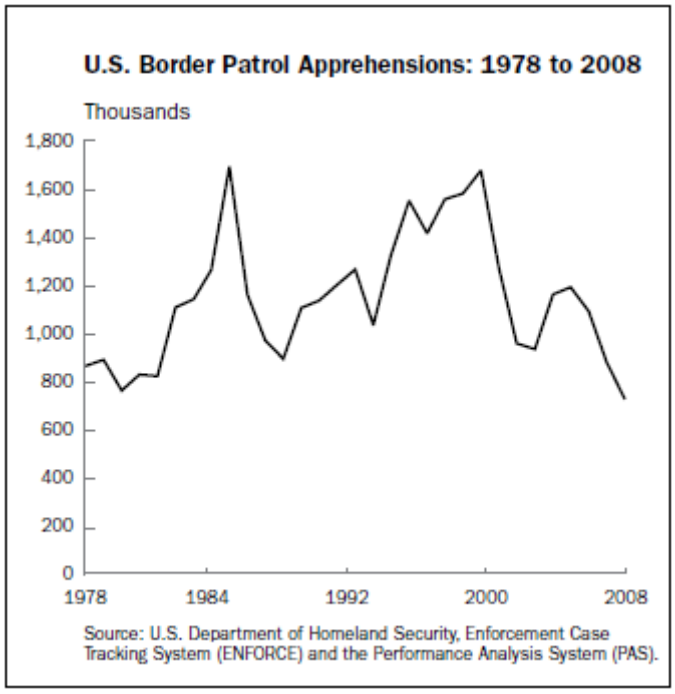
Security measures in Hidalgo County

Hidalgo County shares a small part of the border with Mexico, and as a result, airports and land ways are all subject to serious security threats. Since the county has different Ports of Entry (POE) and the majority of daily commuters travel via land, more attention is needed

at the border crossings. Border Patrol and U.S Customs working near the borders and international bridges hold tight security measures for any illegal entry of goods or persons that might cause threat to the nation.

Figure 4.5.12 shows the number of apprehensions made by Border Patrol in the United States from 1978 to 2008. Data beginning in 2005 were obtained from the Enforcement Case Tracking System (ENFORCE) of the Department of Homeland Security (DHS). For prior years, data were obtained from the Performance Analysis System (PAS) of DHS.

Figure 4.5.12: Apprehensions of Illegal Aliens entering the United States



The number of apprehensions made by the Border Patrol declined for the third year in a row to 724,000 in 2008 after reaching a mid-decade peak of 1,189,000 in 2005. The decrease in apprehensions between 2005 and 2008 may be due to a number of factors including declining U.S. economic growth and enhanced border enforcement efforts. Border apprehensions in 2008 were at their lowest level since 1976. Apprehensions previously peaked at 1,676,000 in 2000. The all-time apprehension record was 1,693,000 in 1986 immediately preceding passage of the Immigration Reform and Control Act (IRCA), which allowed the legalization of several million unauthorized immigrants, established sanctions for employers who knowingly hired unauthorized immigrants, and provided for increased border enforcement.

Some of the security measures that have been implemented to reduce the illegal entry of aliens and goods are:

a. Surveillance cameras
b. X-ray machines to detect the goods that cross the border in trucks
c. Radiation detection devices
d. Horse patrol
e. Night vision equipment
f. Sensors

The equipment used for these types of security measures is funded by the federal agencies to increase tightened security and control the free flow along the borders. Individuals within the agencies are trained to use the equipment to sense any threat that the United States might have to face.

Texas Homeland Security Equipment Grant

Every year, the federal government allocates certain amounts of funds to the State Administrative Agency (SAA) for Homeland Security. The State Administrative Agencies collaborate with the local entities and work towards the goal of providing the nation with the capacity to attain a critical state of readiness to respond to threats of terrorism. The member institutes train local and state officials as well as emergency first responders, to respond to acts of terrorism including those involving the use of weapons of mass destruction (WMD).

Texas Engineering Extensions Service (TEEX) serves as the state administrative agency for the State Homeland Grant Program and the Urban Areas Security Initiative program funded by the U.S. Department of Homeland Security, Office for Domestic Preparedness. TEEX distributes the funds to nearly 700 local governments in Texas representing around 90% of the population. These funds are used to buy equipment that will help in preventing or responding to potential terrorist threats.

The figure below shows the distribution of these funds on a national basis as well as on a statewide level.

Figure 4.5.13: State Homeland Security Grant Program (in Millions)

STATE HOMELAND SECURITY GRANT PROGRAM (IN MILLIONS)

FISCAL YEAR FEDERAL	2002 ACTUAL	2003 ACTUAL	2004 ACTUAL	2005 ACTUAL	2006 ACTUAL	2007 ACTUAL	2008 ESTIMATE
National	$315.7	$2,066.3	$1,675.1	$1,062.3	$528.2	$509.3	$861.3
Texas	$16.2	$107.8	$87.4	$55.7	$26.1	$34.4	$65.4
% Share	5.1	5.2	5.2	5.2	4.9	6.8	7.6

Source: U.S. Department of Homeland Security.

Homeland Security grant program in Lower Rio Grande Valley

The Lower Rio Grande Valley Development Council (LRGVDC) is responsible for conducting the training programs and preparing local officials for any type of emergency.

The Lower Rio Grande Valley Development Council distributes its funds to the Hidalgo, Willacy and the Cameron counties. There are 46 jurisdictions working under the LRGVDC. These funds may be used for planning, organization, training, exercises and/or equipment.

These grants are further divided into Regional allocations and Base grants:

- ***Regional Allocations:*** At least 80% of the grant must be allocated to the local governments among the different jurisdictions as the regional allocation. The regional risk is determined using the information from the Councils of Government, from the Departments of Homeland Security, from the Texas Division of Emergency Management and information on airports and Ports of Entry (POE).
- ***Base Grants:*** 30% of regional funding is used for base grants and these grants are awarded to jurisdictions over 25,000 populations that complete the assessment and have credit for an Emergency Operations Plan. The council of governments may allocate funding to any or eligible jurisdictions including those with less than 25,000 populations and to ports, transit authorities or school districts associated with eligible jurisdictions.

Training Programs

Training programs are intended to help people and make them more aware of the risks or threats that might occur in the United States. These programs might help people for emergency and domestic preparedness and identify any terrorist attacks. The state agencies grant funds through the federal governments based on the importance of the

training program. Currently for the LRGVDC, funds have been allocated by the State Administrative Agency (SAA) on these training programs. The LRGVDC then allocates funding from the *Law Enforcement Terrorism Prevention Program* (LETPP). The chart below shows the amounts of funding on a national and state level for the LETPP.

Figure 4.5.14: Law Enforcement Terrorism Prevention Program (in Millions)

LAW ENFORCEMENT TERRORISM PREVENTION PROGRAM (IN MILLIONS)

FISCAL YEAR FEDERAL	2002 ACTUAL	2003 ACTUAL	2004 ACTUAL[1]	2005 ACTUAL	2006 ACTUAL	2007 ACTUAL	2008 ESTIMATE[2]
National	NA	NA	$497.1	$386.3	$384.1	$363.8	NA
Texas	NA	NA	$25.9	$20.3	$24.7	$24.6	NA
% Share	NA	NA	5.2	5.2	6.4	6.8	NA

[1]Fiscal year 2004 was the first year that Law Enforcement Terrorism Prevention Program grants were awarded.
[2]Fiscal year 2008 awards were suspended.
SOURCE: U.S. Department of Homeland Security.

The LETPP provides law enforcement communities with funds to support the following prevention activities:

1. Information sharing to preempt terrorist attacks
2. Target hardening to reduce vulnerability of selected high value targets
3. Recognition of potential or developing threats
4. Interoperable communications and
5. Intervention of terrorists before they can execute a threat

4.5F US/Mexico Border Partnership Agreement

On March 22, 2002 in Monterrey, Mexico, President Bush and President Fox announced a 22-point agreement to build a "smart" border for the 21st century - one that better secures our borders while also speeding the free flow of people and commerce.

As our second-largest trading partner, Mexico and the United States share more than just a border and thus, the need for border infrastructure and border management systems that facilitate the continued integration of the North American economic region is vital. These systems should protect the citizens of both nations from terrorism, illegal drugs, and other dangers; facilitate and expedite legitimate cross border travel and commerce; and allow our governments to determine who crosses the borders. The specific measures that comprise the joint action plan with Mexico embrace technology and enhance bilateral

cooperation to ensure a humane, efficient, and modernized management of the border that joins our peoples and our economies.

The Border Partnership Agreement mainly concentrates on the following issues:

- ***Secure infrastructure***
  In order to coordinate the infrastructure development plans, while improving the use of existing systems, Mexico and the United States have agreed to harmonize our planning systems and to better communicate between border-control agencies at ports of entry. Both governments are also examining modeling techniques and procedures to ensure that our border infrastructure is able to meet the demands placed on it by border communities and commerce.

  The border partnership also calls upon Mexico and the United States to examine border infrastructure, communication and transportation networks and their associated vulnerabilities in order to identify critical trans-border infrastructure protection deficiencies, and to take measures to remedy them.

- ***Secure the flow of people***
  By signing the Border Partnership, Mexico and the United States have made significant progress in strengthening border security measures in both countries. These bilateral actions will be further enhanced by the recent merging of the U.S. agencies responsible for the border into the new Department of Homeland Security, the formation of which provides the Mexican government with one point of contact for border security matters.

  To encourage and promote low-risk travel through congested ports of entry, the United States plans to expand, by using state-of-the-art technology, the Secure Electronic Network for Travelers Rapid Inspection (SENTRI). The United States and Mexico plan to accelerate their border safety collaboration to safeguard migrants by placing additional personnel and life-saving equipment along the border and placing more attention to certain “high risk” areas. Training of immigration officials and law enforcement authorities from both countries in life-saving techniques is underway. The authorities of both countries plan to continue to work jointly to arrest and prosecute smugglers who place migrants at risk.

- ***Secure the flow of goods***
  Based on a longstanding relationship of cooperation and mutual assistance, U.S. Customs and Border Protection (CBP) and the General Customs Administration of Mexico (GCAM) have begun the implementation of those action items designed to guarantee the secure and efficient flow of trade between our nations. For the purpose of developing initiatives identified in the U.S/Mexico Border Partnership Plan, three working groups have been created:

  1. The Border working group
  2. The Enforcement working group
  3. The Technology and Customs Procedures working group.

These groups have been working on a broad range of initiatives. Some include:

- Harmonizing and extending the hours of service, in coordination with our trade communities, at the ports of entry located at our common border;
- Working to implement the Advanced Passenger Information System in Mexico that will collect and share data pertaining to air passengers arriving into and departing from Mexico and the United States;
- Deploying gamma ray machines at our railroad crossings;
- Expanding programs and partnerships with the private sector, such as Business Anti-Smuggling Coalition (BASC), the Customs-Trade Partnership Against Terrorism (C-TPAT) and Mexico's Compliant Importer/Exporter Program;
- Exchanging core data on every transaction occurring throughout common border in electronic equipment;
- Testing and implementing cutting edge technology such as electronic seals;
- Conducting joint investigations concerning fraudulent trade, which have led to significant seizures of illegally transshipped or undervalued goods;
- Developing systems to monitor in-transit shipments through our territories and
- Seizing illegal cash transported by air passengers;

The FHWA division took the lead in developing and organizing the State of Texas Border Partnership working group in FY 2004. Some of the agencies that were part of the Texas Border Partnership were:

- Federal Motor Carrier Division (State of Texas)
- Texas DOT (Administration, Motor Carrier Division, Vehicle Titles & Registration, Transportation Planning & Programming, International Affairs, Maintenance, Traffic Analysis, ITS Traffic Operations, Systems Planning, Multi-modal Section, District Field Offices)
- Texas Transportation Institute (Texas A&M); Center for Transportation Research (University of Texas-Austin); and the University of Texas (San Antonio)
- Department of Homeland Security (DHS)
- U.S. Customs and Border Protection (Port Directors)
- GSA (Fort Worth, TX)
- Border MPOs (including: El Paso, Laredo, Brownsville, Hidalgo, and Harlingen MPOs)

Other major stakeholders also included:

- FHWA District Engineer (Co-Chairperson)
- FHWA International Transportation Program Engineer
- FHWA Area Engineers (Border Districts-Pharr, Laredo, El Paso)
- FHWA Office of Freight Management and Operations
- Two U.S. Senator Office Representatives
- Bureau of Transportation Statistics (BTS)
- Texas Department of Public Safety (DPS)

The Hidalgo County Metropolitan Planning Organization was successful in coordinating with the City of Reynosa and beginning a cooperative relationship by identifying mutual interests and coordinating with one another by combining transportation planning efforts to benefit both the United States and Mexico. In 2006, a Memorandum of Understanding was signed between the Hidalgo County Metropolitan Planning Organization and the City of Reynosa, Tamaulipas that officially recognized both parties as partners in interchanging of information, collaboration and technical assistance that was vital to both areas. Efforts began between the Hidalgo County MPO and the Mexican Consulate thereafter but in the past year, coordination efforts have been at a standstill. Since with every new administration, a new staff is put in place and thus, there is much work to be

done to begin cultivating a new relationship for continuous coordination of transportation planning efforts between the two entities.

4.6 Congestion and Management Elements

4.6A Introduction

The Congestion Management System (CMS) known under SAFETEA-LU as the Congestion Management Process (CMP) for the Hidalgo County urbanized area, is a cooperative, coordinated work effort among the entities that are responsible for transportation planning within the urbanized area of Hidalgo County. The HCMPO, TxDOT-Pharr District, Hidalgo County, and the various cities within this area have developed a CMP and an accompanying work plan. In 2005, SAFETEA-LU mandated that all TMAs, areas with a population of 200,000 or more, have to develop a CMP as part of their transportation planning process to qualify for federal funding.

4.6B Definition of Congestion Management Process (CMP)

According to the Texas Department of Transportation (TxDOT), CMP means a systematic process that provides information on transportation system performance and alternative strategies to alleviate congestion and enhance the mobility of persons, goods, and freight. A CMP includes methods to monitor and evaluate performance, identify alternative actions, assess and implement cost-effective strategies, and evaluate the effectiveness of the implemented actions.

A CMP is a combination of measures that monitor, forecast, and analyze congestion levels and relief measures. This prescriptive process will aid in monitoring and recommending strategies to improve or maintain mobility, and maintain or reduce emissions and pollution. The CMP is a continuing, cooperative, and comprehensive effort to consider and implement actions to maintain mobility and air quality in the Hidalgo County MPO area.

The CMP is a part of the Hidalgo County MPO's larger role in transportation planning. The CMP recommendations should be incorporated in future Metropolitan Transportation Plans (MTPs) and Transportation Improvement Plans (TIPs). The Congestion Management elements proposed contained in this Plan are:

- Identification of congested roadways
- Identification of agency responsibility
- Identification of roadway performance measures

- Development of a continuous monitoring process, including Travel Rate Studies, Traffic Counts, and Vehicle Classification
- Development of a continuous evaluation process, including land use changes and developments endangered by transportation facility changes
- Development of congestion reduction strategies

4.6C Rules in Regulations in Regard to Congestion Management

SAFETEA-LU mandates under ***Title 23*** (Highways), ***Part 450*** (Planning Assistance and Standards), ***Subpart C*** (Metropolitan Transportation Planning and Programming), ***Article 320*** (Congestion Management process in transportation management areas) that:

a) The transportation planning process in a Transportation Management Area (TMA) shall address congestion management through a process that provides for safe and effective integrated management and operation of the multimodal transportation system, based on a cooperatively developed and implemented metropolitan-wide strategy, of new and existing transportation facilities eligible for funding under title 23 USC and title 49 USC through the use of travel demand reduction and operational management strategies.

b) The development of a congestion management process should result in multimodal system performance measures and strategies that can be reflected in the metropolitan transportation plan and the TIP. The level of system performance deemed acceptable by State and local transportation officials may vary by type of transportation facility, geographic location or time of day. In addition, the consideration should be given to strategies that manage demand, reduce single occupant vehicle (SOV) travel, and improve transportation system management and operations. Where the addition of general purpose lanes is determined to be an appropriate congestion management strategy, explicit consideration is to be given to the incorporation of appropriate features into the SOV project to facilitate future demand management strategies and operational improvements that will maintain the functional integrity and safety of those lanes.

c) The congestion management process shall be developed, established, and implemented as part of the metropolitan transportation planning process that includes coordination with transportation system management and operations activities. The congestion management process shall include:

a. Methods to monitor and evaluate the performance of the multimodal transportation system, identify the causes of recurring and non-recurring congestion, identify and evaluate strategies, provide information supporting the implementation of actions, and evaluate the effectiveness of implemented actions

b. Definition of congestion management objectives and appropriate performance measures to assess the extent of congestion and support the evaluation of the effectiveness of congestion reduction and mobility enhancement strategies for the movement of people and goods. Since levels of acceptable system performance may vary among local communities, performance measures should be tailored to the specific needs of the area and established cooperatively by the State, affected Metropolitan Planning Organization (MPO), and local officials in consultation with the operators of major modes of transportation in the coverage area

c. Establishment of a coordinated program for data collection and system performance monitoring to define the extent and duration of congestion, to contribute in determining the causes of congestion, and evaluate the efficiency and effectiveness of implemented actions. To the extent possible, this data collection program should be coordinated with existing data sources (including archived operational/ITS data) and coordinated with operations managers in the metropolitan area

d. Identification and evaluation of the anticipated performance and expected benefits of appropriate congestion management strategies that will contribute to the more effective use and improved safety of existing and future transportation systems based on the established performance measures. The following categories of strategies, or combinations of strategies, are some examples:
   i. Demand management measures, including growth management and congestion pricing
   ii. Traffic operational improvements
   iii. Public transportation improvements
   iv. ITS technologies as related to the regional ITS architecture
   v. Where necessary, additional system capacity

e. Identification of an implementation schedule, implementation responsibilities and possible funding sources for each strategy proposed for implementation

f. Implementation of a process for periodic assessment of the effectiveness of implemented strategies, in terms of the area's established performance measures. The results of this evaluation shall be provided to decision makers and the public to provide guidance on selection of effective strategies for future implementation

d) In a TMA designated as nonattainment area for ozone or carbon monoxide pursuant to the Clean Air Act. Federal funds may not be programmed for any project that will result in a significant increase in the carrying capacity for SOV unless the project is addressed through a congestion management process meeting the requirements of this section

e) In TMAs designated as nonattainment for ozone or carbon monoxide, the congestion management process shall provide an appropriate analysis of reasonable travel demand reduction and operational management strategies for the corridor in which a project that will result in a significant increase in capacity for SOVs is proposed to be advanced with Federal funds. If the analysis demonstrates that travel demand reduction and operational management strategies cannot fully satisfy the need for additional capacity in the corridor and additional SOV capacity is warranted, then the congestion management process shall identify all reasonable strategies to manage the SOV facility safely and effectively. Other travel demand reduction and operational management strategies appropriate for the corridor, but not appropriate for incorporation into the SOV facility itself, shall also be identified through the congestion management process. All identified reasonable travel demand reduction and operational management strategies shall be incorporated into the SOV project or committed to by the State and MPO for implementation.

4.6D Intent of the Congestion Management Process

The goal of the Congestion Management Process (CMP) for the Hidalgo County urbanized area and the MPO is to optimize the performance of existing and plan for the optimal performance of future transportation system elements through effective and efficient utilization of the congestion management process. This plan for a CMP proposes to provide information and strategies to improve the performance of existing and proposed facilities as well as provide a mechanism to deliver input to the transportation planning process for consideration at a system level.

Identification of the HCMPO boundary, a work plan that will identify major activities and responsibilities in regard to the CMP, identification of the critical congestion areas requiring analysis, selection performance measures, and establishment of data collection activities began in the mid 1990's. As required by Federal legislation, the CMP will focus on the following areas:

- Consideration will be given to strategies to reduce Single Occupant Vehicle (SOV) travel
- All transportation corridors and/or facilities with existing or potential recurring congestion shall be identified and an assessment of the level of current and potential congestion will be made on an ongoing basis
- The CMP will be an integral part of the metropolitan planning process
- The congestion management process will be coordinated with the development, establishment, and implementation of the public transportation element and the intermodal terminals element of the Metropolitan Transportation Plan (MTP)

4.6E History of Congestion Management Process

The Hidalgo County Metropolitan Planning Organization (HCMPO) has an established Congestion Management Process (CMP) to monitor the transportation network in Hidalgo County as required by the Safe Accountable Flexible Efficient Transportation Equity Act – a Legacy for Users (SAFETEA-LU) for Transportation Management Areas identified as areas with 200,000 in population or more.

The goal of the monitoring system is to ensure optimal performance of the transportation system by identifying congested areas and related transportation deficiencies. The system also directly supports the preservation of the existing network as mandated by SAFETEA-LU. This information is then used in the transportation planning process to develop strategic improvement projects that will increase and maintain the performance of roadways at a system level. Traffic studies are conducted almost every year, rotating among the seasons.

- The 2001 study was conducted in the fall with travel time runs in November and December
- The 2003 study was conducted in the summer with travel time runs in July and August
- The 2004 study was conducted in the spring with travel runs in May and June

- The 2005 study was conducted in the winter with travel runs in January and February
- The 2006 and 2007 studies were conducted in the fall and spring consecutively with travel runs in November and December, May and June
- The 2009 studies were conducted in winter and summer consecutively with travel runs in January and February, July and August
- The HCMPO also performed a CMP Tier II study in the year of 2005

4.6F Study Background

The Congestion Management Process (CMP), previously known as the Congestion Management System (CMS) developed since 1995, has mostly covered approximately 500 miles of roadways in its study area. These roadways have been located in Hidalgo County and in the cities of: Alamo, Alton, Donna, Edcouch, Edinburg, Elsa, Granjeno, Hidalgo, La Joya, La Villa, McAllen, Mercedes, Mission, Palmhurst, Palmview, Peñitas, Pharr, Progreso, Progreso Lakes, San Juan, Sullivan City, and Weslaco. Figure 4.6.1 shows the study area and roadways.

The specific roadways and miles covered in the latest CMP's are as follows:

- The 2004 Spring Study

  The spring study was conducted on approximately 450 miles of roadways in Hidalgo County. Roadways were located in the county and in the cities of Alamo, Alton, Donna, Edcouch, Edinburg, Elsa, Hidalgo, La Joya, La Villa, McAllen, Mercedes, Mission, Palmhurst, Palmview, Peñitas, Pharr, Progreso, Progreso Lakes, San Juan, Sullivan City, and Weslaco. The study included 57 different roadways, divided into 1,692 separate segments that ranged from 106 feet to 2.5 miles in length in the rural area. Several of the roadways had been included in previous studies. The segments in this study are the same segments covered under the spring study of 2001.

- The 2005 Winter Study

  The winter study was conducted on approximately 509 miles of roadways in Hidalgo County. Roadways were located in the county and in the cities of Alamo, Alton, Donna, Edcouch, Edinburg, Elsa, Granjeno, Hidalgo, La Joya, La Villa, McAllen, Mercedes, Mission, Palmhurst, Palmview, Peñitas, Pharr, Progreso, Progreso Lakes, San Juan, Sullivan City, and Weslaco. The study included 54 different roadways, divided into 1,877 separate segments that ranged from 123

feet to 2.9 miles in length in the rural area. Several of the roadways had been included in previous studies. All of the study roadways are evaluated during the AM and PM peak periods between the hours of 7:00 AM - 9:00 AM and 4:00 PM - 6:00 PM respectively. Selected routes were evaluated during the Mid-day peak period, between the hours of 11:00 AM - 1:00 PM.

- The 2005 CMP Tier II Study

  By adding a second tier to the CMP, the Hidalgo County MPO is able to grasp a greater degree of analysis for a select few critical corridors. For 2005 the MPO studied the following corridors, which are among the most congested and in need of a congestion management plan:

  - FM 88 from 18th Street to Mile 10 in the City of Weslaco, TX
  - FM 907 from Sioux Road to Ridge Road in the City of Alamo, TX
  - 10th Street from Harvey to Trenton in the City of McAllen, TX

- The 2006 and 2007 Studies

  The study was conducted on approximately 440 miles of roadways in Hidalgo County and on the cities of Alamo, Alton, Donna, Edcouch, Edinburg, Elsa, Granjeno, Hidalgo, La Joya, McAllen, Mercedes, Mission, Palmhurst, Palmview, Peñitas, Pharr, Progreso, Progreso Lakes, San Juan, Sullivan City, and Weslaco. The study included 48 different roadways, divided into 1,599 separate segments that ranged from 137 feet to 3.5 miles in length in the rural area. Several of the roadways had been included in previous studies. All of the roadways studied are evaluated during the AM and PM peak periods, between the hours of 7:00 AM - 9:00 AM and 4:00 PM - 6:00 PM, respectively.

- The 2008 and 2009 Studies

  The study was conducted on approximately 343 centerline miles of roadways in Hidalgo County and the following cities: Alamo, Alton, Donna, Edinburg, Hidalgo, McAllen, Mercedes, Mission, Palmhurst, Palmview, Pharr, Progreso, San Juan, and Weslaco. Figure 4.6.1 shows the study area and roadways. The study included 44 different roadways, divided into 1475 separate segments that ranged from 106 feet to 2.25 miles in length in the rural area. Several of the roadways had been included in previous studies. Each year new segments are evaluated while others from previous years that resulted in stable to free flow conditions are dropped. The roadways and limits were consistent for both seasons evaluated this year. All of the roadways studied are evaluated during

the AM and PM peak periods, between the hours of 7:00 AM-9:00 AM and 4:00 PM-6:00 PM, respectively. The total centerline and directional miles during each study period are shown in Table 4.6a.

Table 4.6a - Total Study Miles Summary for CMP Study

Study Period	Total Centerline Miles	Total Directional Miles
Winter 2009	343	687
Summer 2009	343	687
Total	686	1374

Figure 4.6.1: Hidalgo County MPO Winter and Summer CMP (2009)

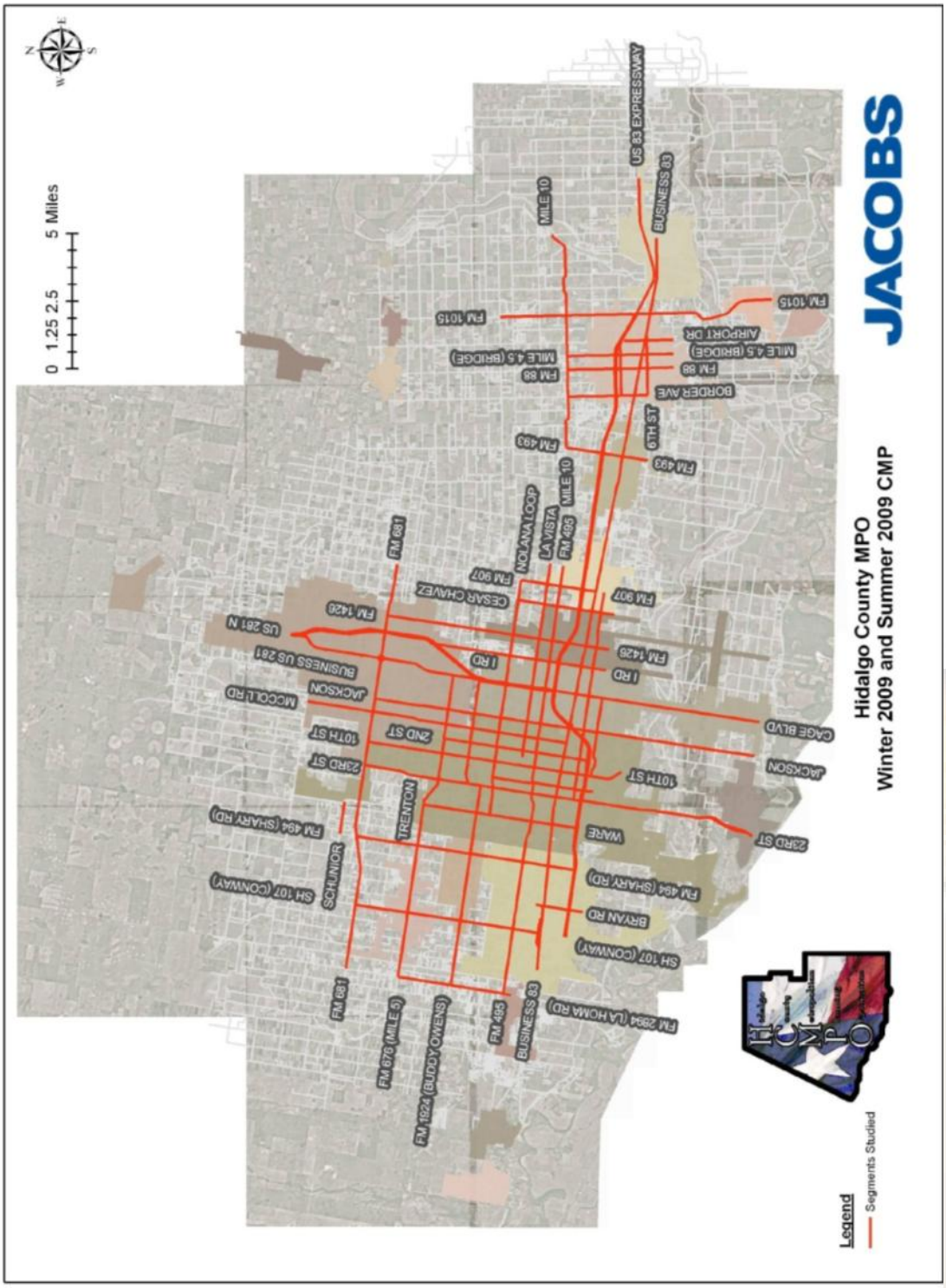


Figure 4.6.2a: Hidalgo County MPO Summer CMP (2009) Results

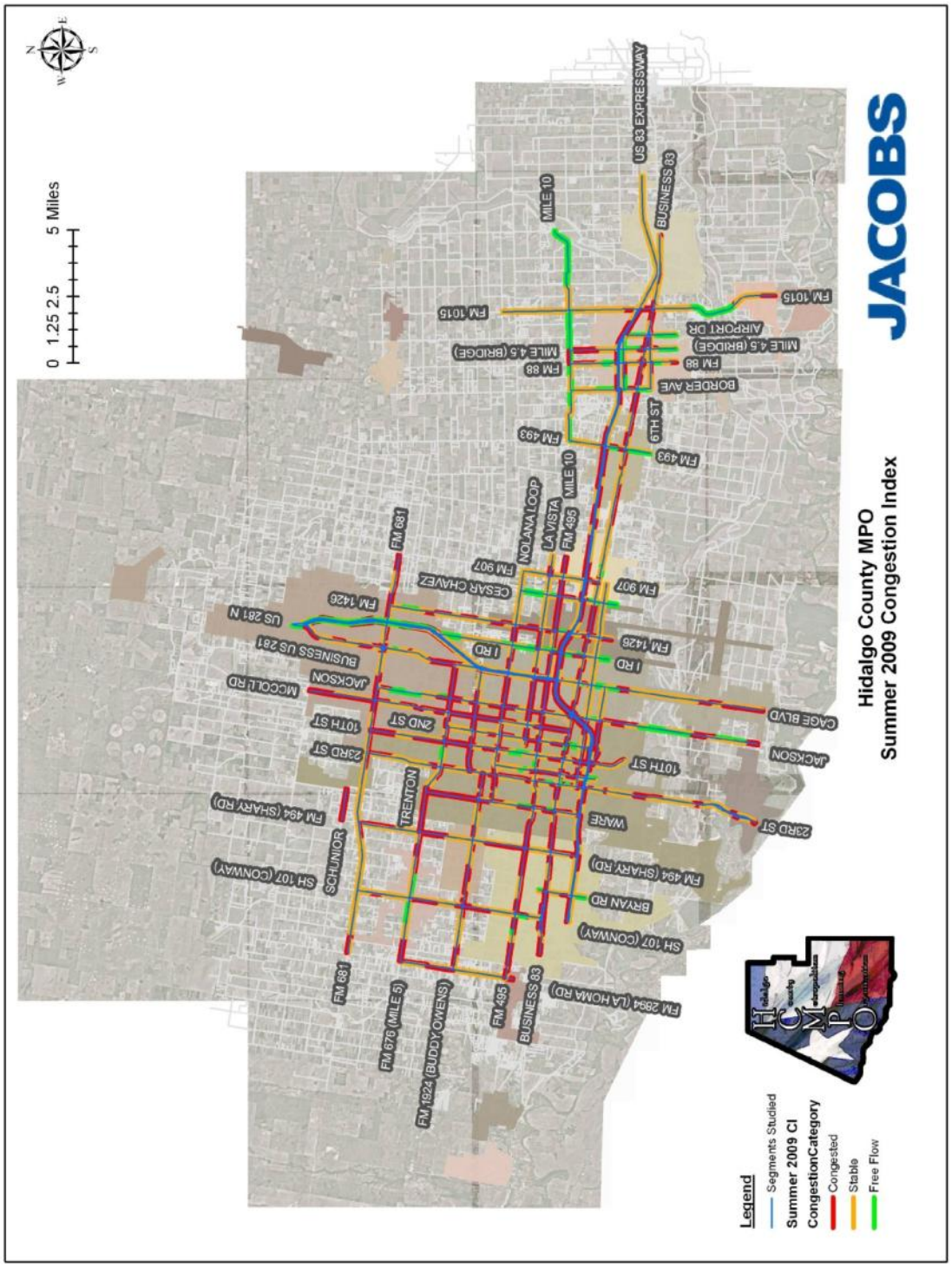
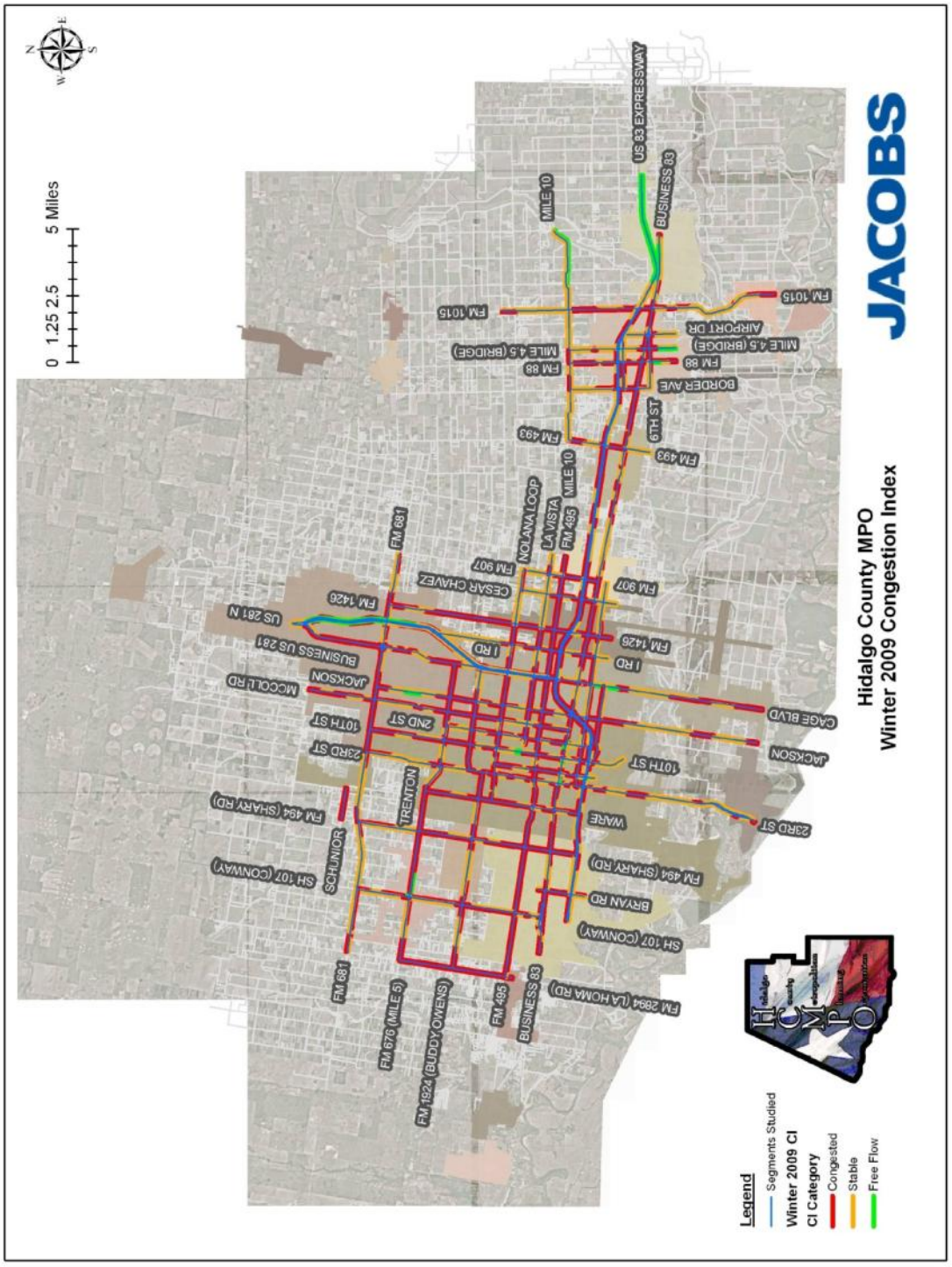


Figure 4.6.2b: Hidalgo County MPO Winter CMP (2009) Results



4.6G Conclusions of Winter-Summer 2009 Study

The majority of the roadways studied in Winter 2009 were operating under congested conditions, while the majority of roadways studied in Summer 2009 were operating under stable or free-flow conditions. 50% of the roadways were operating under congested conditions during Winter 2009, and 35% of the roadways were operating under congested conditions during Summer 2009.

On many of the segments with a Congestion Index in the congested range, the congestion occurred only near a stop sign or traffic signal and had acceptable conditions through the remainder of the segment.

The overall HCMPO Weighted Mean Network Value for this study was 0.48 for Winter 2009 and 0.24 for Summer 2009. Both these values indicate that for common roads across all years congestion is on the rise.

The results of this report when compared to previous study year roadways indicate higher levels of congestion, particularly when compared to respective seasons. Possible reasons for this include continued population growth, seasonal fluctuations in the population during the winter months, and on-going construction. In some cases, construction is completed and signal optimization is needed to maximize the efficiency of the new improvements.

4.6H Recommendations of Winter-Summer 2009 Study

The Winter 2009 and Summer 2009 top 20 most congested segments along with potential improvements are listed in Tables 4.6b and 4.6c, respectively. Four segments appear on the top 20 for both seasons. This indicates a consistent problem in those areas.
Improvements include traffic signal timing optimization, access management, roadway widening, and adding traffic signals (when warranted) in place of existing stop signs.

Figures 4.6.4 and 4.6.5 illustrate the distribution of recommendations for the Winter 2009 and Summer 2009, respectively. They are similar to the findings of past studies. The majority of the segments found to be congested would improve by optimizing and coordinating the signals along the corridors. In general, the majority of the study network would recognize improved operations before warranting larger capital expenditures. Of the roadway segments that were congested, 67% would improve to acceptable levels with optimized and coordinated signal timing.

Access management could improve 10-11% of the segments. On these congested segments, drivers turning into multiple driveways in close proximity interrupted through traffic as they slowed to make their turn. Combining driveways and providing right-turn or left-turn lanes can move the slow-moving traffic out of the way of through traffic, reducing delay and potential for rear-end collisions.

Signal timing continues to be an area that deserves attention within the county to allow maximum efficiency of the existing system before costly widening to add capacity. The results will be very evident as has been demonstrated previously with localized projects. A regional perspective would produce consistent travel time runs even when crossing from one city / agency to another.

4.6I Level of Service (LOS)

According to the Transportation Research Board (TRB) and the Highway Capacity Manual (HCM), Level of Service (LOS) is a measure of effectiveness by which traffic engineers determine the quality of service on elements of transportation infrastructure. When the motorist is interested in speed of his journey, LOS is a more detailed approach, taking into account several other factors.

LOS "A" is the best, described as conditions where traffic flows at or above the posted speed limit and all motorists have complete mobility between lanes. LOS "A" occurs late at night in urban areas and frequently in rural areas.

LOS "B" is slightly more congested, with some impingement of maneuverability; two motorists might be forced to drive side by side, limiting lane changes. LOS "B" does not reduce speed from LOS "A".

LOS "C" has more congestion than "B", where ability to pass or change lanes is not always assured. LOS "C" is the target for urban highways in many places. At LOS "C" most experienced drivers are comfortable, roads remain safely below capacity, and posted speed is maintained.

LOS "D" is perhaps the level of service of a busy shopping corridor in the middle of a week-day, or a functional urban highway during communing hours. Speeds are somewhat reduced, motorists are hemmed in by other cars and trucks. In busier urban areas this level of service is sometimes the goal of peak hours, as attaining LOS "C" would require a prohibitive cost in bypass roads and lane additions.

LOS "E" is a marginal service state. Flow becomes irregular and speed varies rapidly, but rarely reaches the posted limit. On highways this is consistent with a road over its designed capacity.

LOS "F" is the lowest measurement of efficiency for road performance. Flow is forced; every vehicle moves in lockstep with the vehicle in front of it, with frequent drops in speed to nearly zero mph. Technically, a road that is a constant traffic jam would be a LOS "F". This is because LOS does not describe an instant state, but rather an average or typical service. For example, a highway might operate at LOS "D" for the AM peak hours but have traffic consistent with LOS "C" some days, LOS "E" or "F" others, and come to a halt once every few weeks. However LOS "F" describes a road for which the travel time cannot be predicted. Facilities operating at LOS "F" generally have more demand than capacity.

The Highway Capacity Manual and AASHTO's Geometric Design of Highways and Streets "Green Book" list the following levels of service classifications:

A= Free flow

B= Reasonably free flow

C= Stable flow

D= Approaching unstable flow

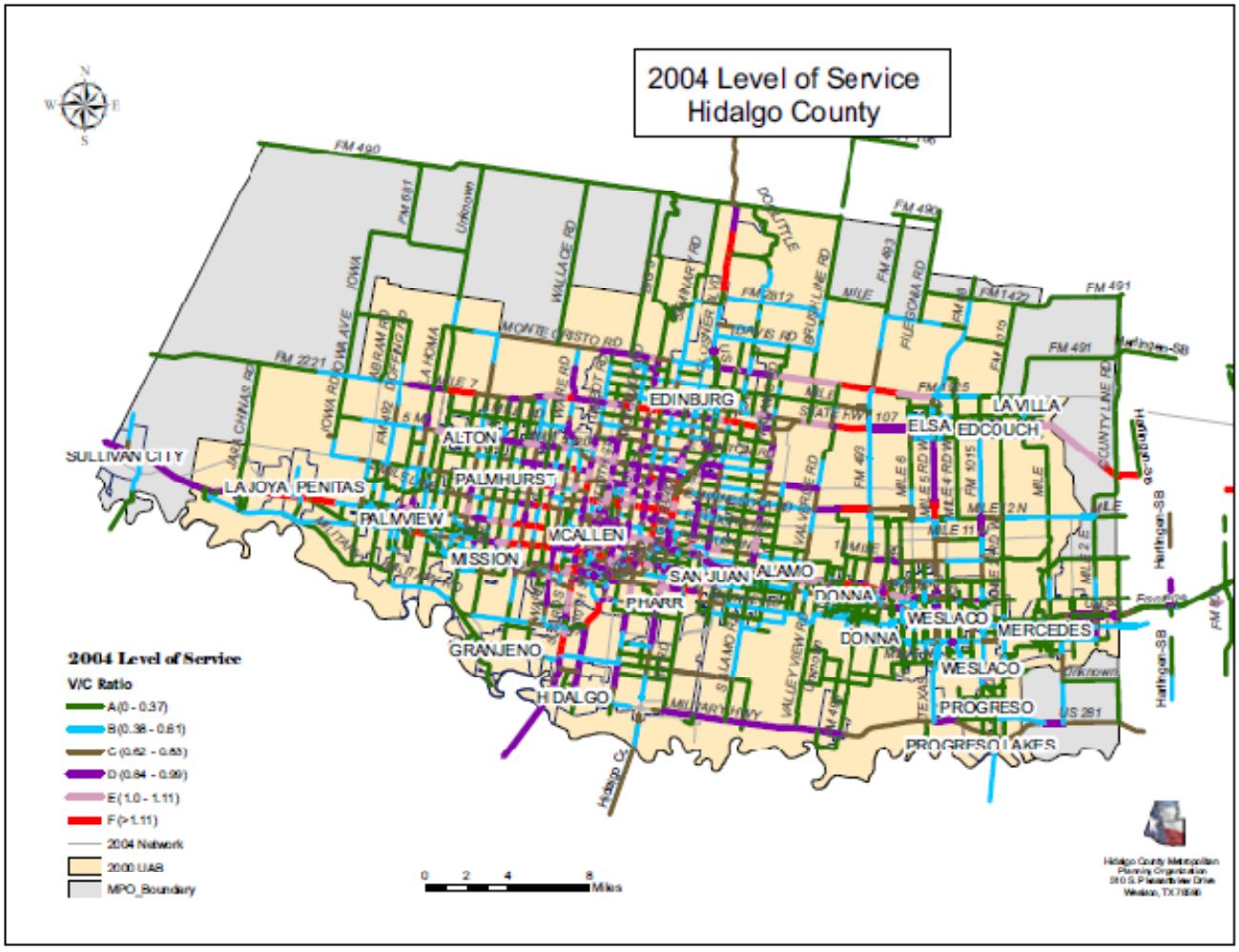
E= Unstable flow

F= Forced or breakdown flow

The HCMPO adopted the following Level of Service ratios for the 2030 Network based on Volume over Capacity.

Level of Service "A"	0 to 0.37
Level of Service "B"	0.38 to 0.61
Level of Service "C"	0.62 to 0.83
Level of Service "D"	0.84 to 0.99
Level of Service "E"	1.00 to 1.11
Level of Service "F"	> 1.11

Figure 4.6.3: 2004 Level of Service for Hidalgo County



4.6J Congestion Index

In 2003, Governor Rick Perry requested that the Texas Department of Transportation (TxDOT) develop a plan to address the growing congestion problem in the state's largest urban areas. TxDOT joined with metropolitan planning organizations in the eight largest urban regions to develop an innovative procedure for estimating the transportation approaches necessary to achieve locally identified mobility goals. One element of the plan was the development of a set of congestion performance measures to be used for both analytical and communication purposes. The main performance measure developed was the Texas Congestion Index (TCI).

The Texas Congestion Index is a spreadsheet-based technique that uses formulas and constants along with a set of procedures that can be viewed and modified by the user. The index is calculated using regional long-range transportation planning model output statistics and a combination of other processing steps to provide a comprehensive estimate of congestion levels. The regional models produce estimates of the vehicle-miles and vehicle-hours of travel for each roadway link. These links include the major mobility-producing portions of the transportation network for current and future conditions. The models are used to study the effect of both land use changes and transportation network improvements.

The spreadsheet for each metropolitan region uses the planning model structure of counties and development types. The output measures are organized by congestion level to provide more detail about the scope and extent of congestion. The primary measures are calculated for peak travel periods (6 to 9 a.m. and 4 to 7 p.m.), but can be created for other time periods with spreadsheet modifications.

The process steps include the following general elements:

- Freeway, Toll-way, HOV and principal arterial street travel statistics are grouped by hour of day and according to the type of area.
- Free-flow travel statistics are estimated.
- Recurring travel delay is calculated as the difference between congested travel time and free-flow travel time.
- Incident delay is estimated and added to the recurring delay.
- The delay-reducing effect of the operation treatments is incorporated.
- Truck travel and car travel are separated and the value components applied.
- Congestion statistics are calculated for the peak six hours of the day and expanded to annual performance measures.

The Texas Congestion Index process was used in the 2004 TMMP and later in the 2006 TMMP update to identify the level of transportation needs and costs necessary to accomplish the goal of alleviating serious congestion problems in 2030. The information has a range of uses, but in general the information improves the level of detail and comprehensiveness of reporting on congestion problems and solutions. The information and procedures will continue to evolve with the input and guidance of the participating metropolitan planning organizations and the Texas Department of Transportation.

One of the underlying goals of the Texas Metropolitan Mobility Plan is to identify long range needs in each metropolitan area to help solve transportation problems, with the ultimate goal being an increase in mobility and a decrease in the level of traffic congestion. To help in quantifying this goal and measuring progress over time, the Texas Department of Transportation will adopt the Texas Congestion Index to aid the metropolitan areas in setting goals for congestion reduction and will be based on the delay time experienced by drivers, for example a Texas Congestion Index of 1.15 would indicate that a peak-period trip would take no more than 15 percent longer than a non-peak period trip, on average.

The Texas Congestion Index is a variation of the Travel Time Index developed by the Texas Transportation Institute for the Annual Urban Mobility Report. This index compares the travel time in the peak period to the travel time that would be required for the same travel at free-slow speeds.

Level of Service "F" conditions begin when freeway speeds enter a range between 50 miles an hour and below. As an initial starting place for this first round of the Texas Metropolitan Mobility Plan development, it was agreed upon that all the Metropolitan Planning Organizations (MPOs) would identify a target level of congestion consistent with eliminating and removing all Level of Service "F" conditions region wide. In order to accomplish this goal and to identify the target level of congestion, each MPO ran the travel demand model four times to produce the following scenarios:

1. An existing "Baseline" condition
2. A year 2030 no-build condition
3. A scenario which includes the recommendations from the MTP financially constrained plan
4. A scenario which eliminates all Level of Service "F" conditions through the entire roadway network
5. A scenario which includes all the projects from the MTP financially constrained plan excluding Prop 14 funded projects, all toll projects, and all pass through financing projects

Each of these five scenarios is input directly into the calculation of Texas Congestion Index values and represents the amount of congestion present and can be plotted to reflect the regional trend in congestion reduction based on the amount of funding and improvements included.

In the Hidalgo County region, the baseline Texas Congestion Index (TCI) value for congestion was **1.21** in 2000. Based on the recommendations contained in the $1.16 billion 2030 Metropolitan Transportation Plan, the TCI value in the year 2030 is expected to be **1.18**. This reflects a little improvement of congestion after the financially constrained MTP has been fully implemented, which indicates the need for additional funding to alleviate a greater level of congestion over time. The no-build condition shows a region's TCI value of **1.50** if none of the improvements in the MTP were implemented, representing an unacceptable level of congestion and delay time. With all the projects from the financially constrained plan excluding the Prop 14 funded projects, toll projects, and pass through financing projects, the TCI value in the year 2030 is expected to be **1.22**. This reflects a worsening in congestion from the base year, which indicates the need for additional funding to alleviate a greater level of congestion over time. The Texas Metropolitan Mobility Plan is the tool to identify the needs that exist above and beyond those identified in the region's Metropolitan Transportation Plan. By reducing all Level of Service "F" conditions throughout the region, the corresponding TCI value would be **1.09**. This is the target level of improvements for the Hidalgo County region.

Table E-1- Top 20 Most Congested Segments Winter 2009

Rank	RouteID	Route	Intersection Segment	City	Congestion Index	Recommendation Category	Recommendation	Length (ft)
1	1049	FM 88 - NB	Retail Driveway TO US 83 EB FR	WESLACO	0.17	Access Management	Update Signal Timing between Mile 6 and US 83 and reduce # driveways through access mgmt. Increase multi-jurisdictional coordination between TxDOT and the cities along the corridor.	576
2	1209	SH 107 (CONWAY) - NB	City Limit TO FM 1924	PALMHURST	0.18	Signal Timing	Update Signal Timing between FM 495 and Kika De La Garza	1369
3	1002	23RD ST - SB	EL MERCADO TO BRIDGE	HIDALGO	0.21	Border Crossing	Delays at border crossing cause congestion and delays on 23rd street.	534
4	1044	FM 494 (SHARY RD) - SB	VICTORIA TO US 83 WB FR	MISSION	0.21	Signal Timing	Update signal timing, 4 lane section with shoulders and TWLTL, plenty of capacity	1005
5	1057	JACKSON - NB	US 83 EB FR TO BUS 83	PHARR	0.21	Access Management	Update Signal Timing between Hall Acres and FM 495. Reduce number of driveways thorugh access management.	776
6	1104	TRENTON - WB	21ST STREET TO 23RD STREET	MCALLEN	0.22	Signal Timing	Update signal timing between 23rd and Bus 281. Study appropriate speed zoning.	1063
7	1114	WARE - SB	Kennedy Ave TO US 83 WB FR	MCALLEN	0.23	Additional Capacity	Short segment at frontage road with heavy turning movements, consider right turn lane, optimize signal timing	852
8	1111	US 83 FRONTAGE RD - EB	JACKSON TO BUS 83	PHARR	0.24	Signal Timing	Update Signal Timing between Tower and Bus 83. Optimize intersection splits to reduce delays at cross street intersections. Increase multi-jurisdictional coordination between TxDOT and the cities along the corridor.	1137
9	1115	10TH ST - NB	ROBIN AVE TO TRENTON	MCALLEN	0.25	Additional Capacity	Update signal timing between US 83 and Trenton. Provide left turn lanes at intersections with frequent turning movements or prohibit left turns at some intersections. Due to the number of driveways, Access Management is needed.	1333
10	1111	US 83 FRONTAGE RD - EB	Whalen Road TO FM 1423	DONNA	0.25	Signal Timing	Update Signal Timing from Sugar to FM 1015	1267
11	1001	23RD ST - NB	INDUSTRIAL TO DOVE (OWASSA)	MCALLEN	0.25	Additional Capacity	Update Signal Timing between US 83 and Pecan. Consider adding more turn lanes to accommodate high volumes of trucks between Industrial and Dove. Tight geometry for trucks at Industrial	883
12	1053	I RD - NB	ALAMEDA TO US 83 EB FR	PHARR	0.26	Signal Timing	Update signal timing between Bus 83 and US 83. Optimize splits to reduce delay on I Rd.	670
13	1059	JACKSON/SAM HOUSTON - EB	CENTER TO JACKSON	MCALLEN	0.26	Signal Timing	Update Signal Timing from 23rd to Jackson.	854
14	1014	BUSINESS 83 - WB	City Limit TO FM 1015	WESLACO	0.27	Planned Improvements	Planned widening in TIP to 4 lanes FM 1015 to Mile 2 W	1350
15	1115	10TH ST - NB	CHICAGO TO BUS 83	MCALLEN	0.27	Access Management	Update signal timing along 10th St and evaluate benefits of Access Mgmt and alternative cross sections	923
16	1210	SH 107 (CONWAY) - SB	City Limit TO FM 1924	PALMHURST	0.29	Signal Timing	Update Signal Timing between FM 495 and Kika De La Garza	1196
17	1077	NOLANA LOOP - EB	WALMART ENTRANCE TO 23RD STREET	MCALLEN	0.29	Signal Timing	Update Signal Timing between US 281 and Ware, study phasing and splits for left turning vehicles.	1651
18	1032	FM 1924 (BUDDY OWENS) - WB	34TH STREET TO FM 2220 (WARE)	MCALLEN	0.29	Signal Timing	Update Signal Timing between La Homa and 23rd Street and develop signal timing plan along corridor. Increase multi-jurisdictional coordination between TxDOT and the cities along the corridor.	1083
19	1064	MCCOLL RD - SB	ALBERTA TO DOVE	EDINBURG	0.29	Signal Timing	Update Signal Timing along corridor between Ridge and FM 1925. Increase multi-jurisdictional coordination between TxDOT and the cities along the corridor.	2612
20	1014	BUSINESS 83 - WB	ILLINOIS TO FM 88 (TEXAS)	WESLACO	0.30	Signal Timing	Update signal timing between Mile 6 (Westgate) and FM 1015. Increase multi-jurisdictional coordination between TxDOT and the cities along the corridor.	693

Table E-2- Top 20 Most Congested Segments Summer 2009

Rank	RouteID	Route	Intersection Segment	City	Congestion Index	Recommendation Category	Recommendation	Length (ft)
1	1111	US 83 FRONTAGE RD - EB	JACKSON TO BUS 83	PHARR	0.22	Signal Timing	Update Signal Timing between Tower and Bus 83. Optimize intersection splits to reduce delays at cross street intersections. Increase multi-jurisdictional coordination between TxDOT and the cities along the corridor.	1137
2	1059	JACKSON/SAM HOUSTON - EB	CENTER TO JACKSON	MCALLEN	0.24	Signal Timing	Update Signal Timing from 23rd to Jackson.	854
3	1078	NOLANA LOOP - WB	6TH STREET TO 10TH STREET	MCALLEN	0.25	Signal Timing	Update Signal Timing between US 281 and Ware, study phasing and splits for left turning vehicles.	1454
4	1115	10TH ST - NB	ZINNIA TO DOVE	MCALLEN	0.25	Additional Capacity	Update signal timing between US 83 and Trenton. Provide left turn lanes at intersections with frequent turning movements. Due to the number of driveways, Access Management is needed	1338
5	1122	BUSINESS US 281 - SB	SH 107 TO CANO	EDINBURG	0.26	Acceptable Delays	Courthouse Signals	777
6	1051	FM 907 - NB	DURANTA TO US 83 EB FR	ALAMO	0.26	Signal Timing	Update Signal Timing at US 83 EB Frontage Road	732
7	1111	US 83 FRONTAGE RD - EB	29TH STREET TO 23RD STREET	MCALLEN	0.27	Signal Timing	Update Signal Timing between Tower and Bus 83. Optimize intersection splits to reduce delays at cross street intersections. Increase multi-jurisdictional coordination between TxDOT and the cities along the corridor.	2610
8	1115	10TH ST - NB	ROBIN AVE TO TRENTON	MCALLEN	0.27	Additional Capacity	Update signal timing between US 83 and Trenton. Provide left turn lanes at intersections with frequent turning movements or prohibit left turns at some intersections. Due to the number of driveways, Access Management is needed.	1333
9	1115	10TH ST - NB	CHICAGO TO BUS 83	MCALLEN	0.28	Access Management	Update signal timing along 10th St and evaluate benefits of Access Mgmt and alternative cross sections	923
10	1046	FM 495 - WB	STCC Campus TO FM 2220 (WARE)	MCALLEN	0.30	Additional Capacity	Update Signal timing between Inspiration and US 281 NB Frontage Road. Consider widening for added capacity and access management.	1018
11	1115	10TH ST - NB	SAVANNAH TO US 83 EB FR	MCALLEN	0.31	Additional Capacity	Update signal timing between US 83 and Trenton. Provide left turn lanes at intersections with frequent turning movements or prohibit left turns at some intersections. Due to the number of driveways, Access Management is needed. Increase multi-jurisdictional coordination between TxDOT and the cities along the corridor.	817
12	1085	RIDGE RD W - EB	K CENTER TO JACKSON	MCALLEN	0.31	Signal Timing	Update Signal Timing from 10th St to Jackson	1408
13	1070	MILE 6 (WESTGATE) - SB	WB FR Ramp TO US 83 WB FR	WESLACO	0.31	Signal Timing	Delay focused around the signals, heavy commercial development along 3 lane section, Update signal timing	531
14	1013	BUSINESS 83 - EB	BLUEBONNET TO CAGE BLVD	PHARR	0.32	Access Management	Update signal timing at Cage and reduce # driveways through access mgmt	930
15	1114	WARE - SB	Kennedy Ave TO US 83 WB FR	MCALLEN	0.33	Additional Capacity	Short segment at frontage road with heaving turning movements, consider right turn lane, optimize signal timing	852
16	1015	CAGE BLVD - NB	POLK TO US 83 EB FR	PHARR	0.35	Access Management	Update Traffic Signal Timing from US 83 to Hall Acres, reduce # driveways through access mgmt	660
17	1057	JACKSON - NB	City Limit TO FM 3072 (DICKER)	PHARR	0.35	Signal Timing	Update Signal Timing between Thomas and FM 3072.	1770
18	1036	FM 2894 (LA HOMA RD) - SB	FM 495 TO US 83 WB FR	PALMVIEW	0.35	Signal Timing	Develop signal timing plan between US 83 WB Frontage Road and FM 495.	1328
19	1111	US 83 FRONTAGE RD - EB	GLASSCOCK TO FM 494 (SHARY)	MISSION	0.35	Signal Timing	Update Signal Timing between Tower and Bus 83. Optimize intersection splits to reduce delays at cross street intersections. Increase multi-jurisdictional coordination between TxDOT and the cities along the corridor.	2523
20	1060	JACKSON/SAM HOUSTON - WB	CENTER TO US 83 EB FR	MCALLEN	0.36	Signal Timing	Update Signal Timing from 23rd to Jackson.	621

Figure 4.6.4: Breakdown of Winter 2009 Improvement Recommendations

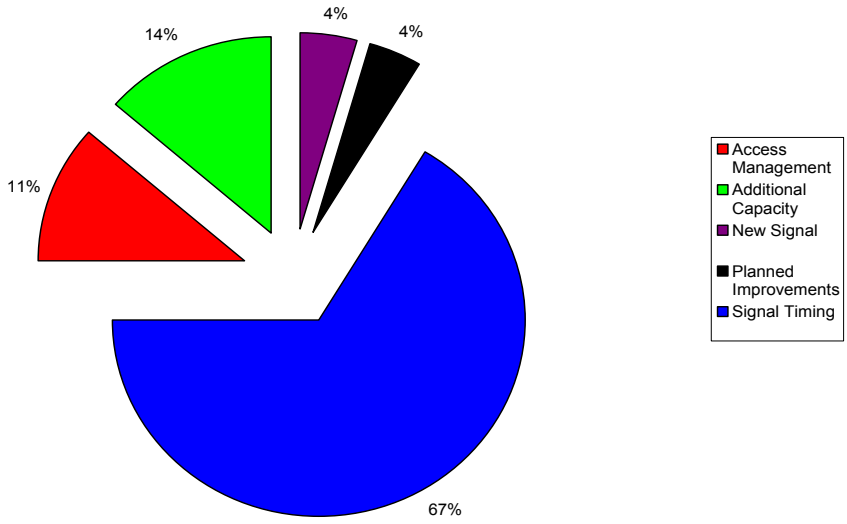
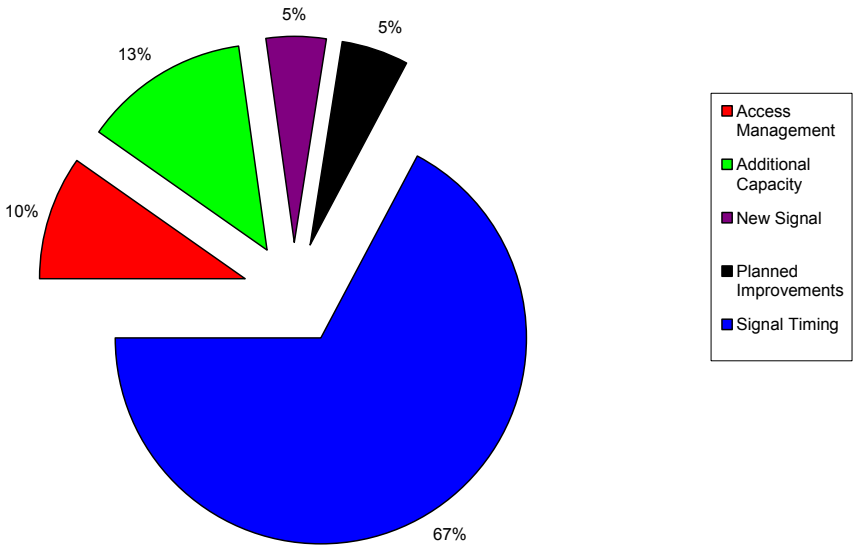


Figure 4.6.5: Breakdown of Summer 2009 Improvement Recommendations



Historical Recommendations

Figure 4.6.6: Breakdown of Spring 2007 Improvement Recommendations

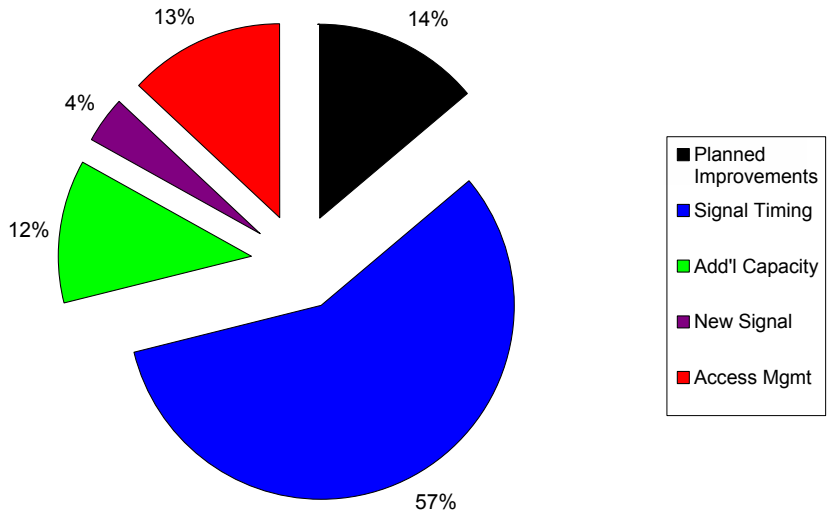


Figure 4.6.7: Breakdown of Fall 2006 Improvement Recommendations

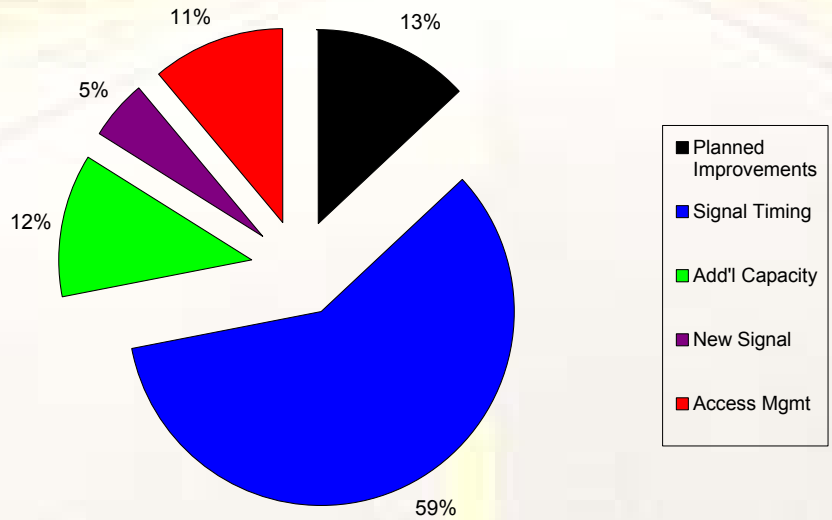


Figure 4.6.8: Breakdown of Winter 2005 Improvement Recommendations

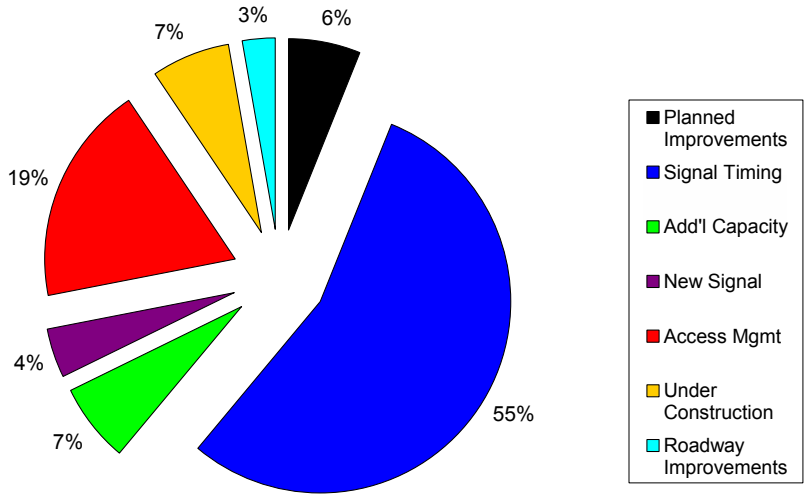


Figure 4.6.9: Breakdown of Spring 2004 Improvement Recommendations

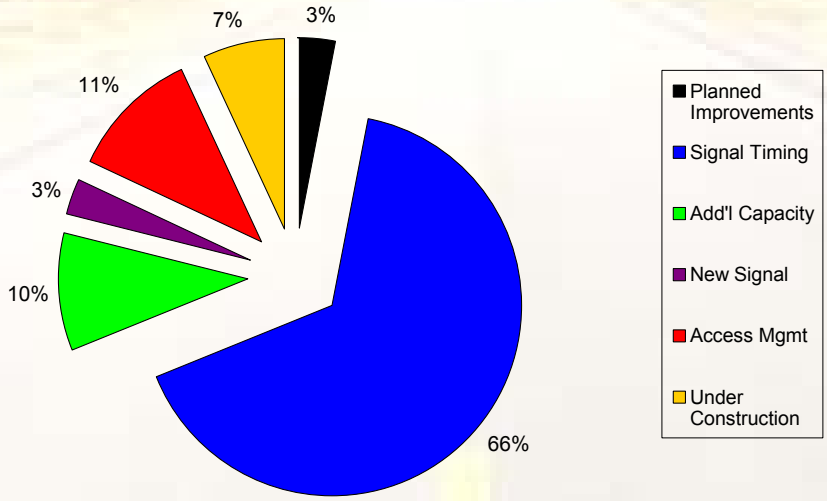


Figure 4.6.10: Breakdown of Summer 2003 Improvement Recommendations

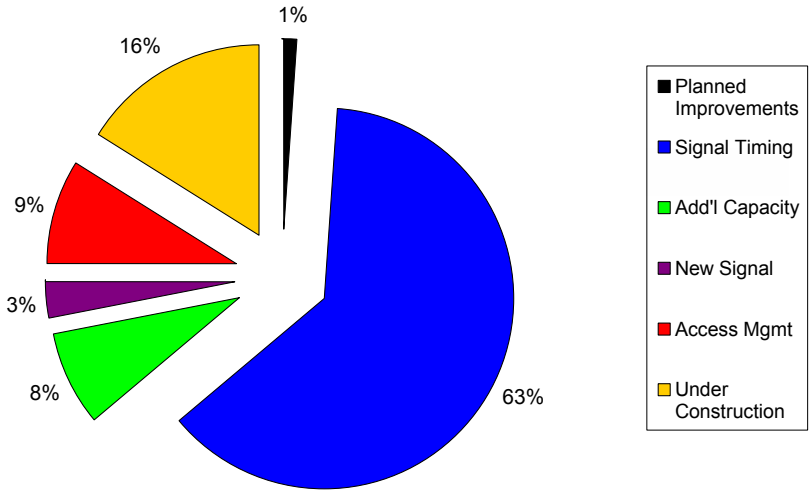
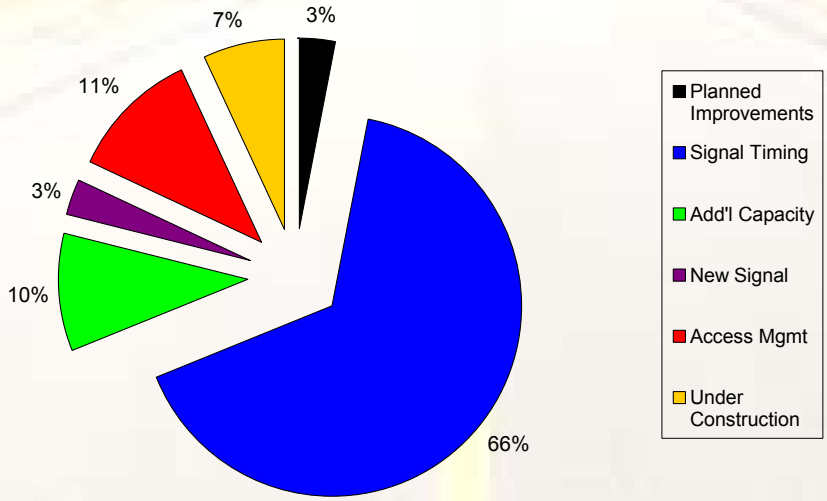


Figure 4.6.11: Breakdown of Fall 2002 Improvement Recommendations



Travel Time Contours

The travel time to the centroid of the county (US 281 and US 83 interchange) was computed. The Study was comprehensive in nature and represents the speeds on all arterials and freeways within the region. Therefore, this data joined with the extensive GIS network and linear reference system allows various elements to be calculated. A new performance measure was included this year to illustrate the travel time throughout the County. The use of travel time contours illustrates the distance that can be traveled for each 5-minute interval. The distance between each line indicates the distance within the respective area. The closer the lines, the shorter distance that can be traveled; therefore the slower the speeds. This is a lengthy computer process and, **Figures 4.6.12** through **4.6.18** demonstrate the travel time contours for both free flow (at posted speed) and at actual speed during respective peak periods.

Figure 4.6.12: Travel Time Contours for Winter 2009 Inbound Free Flow

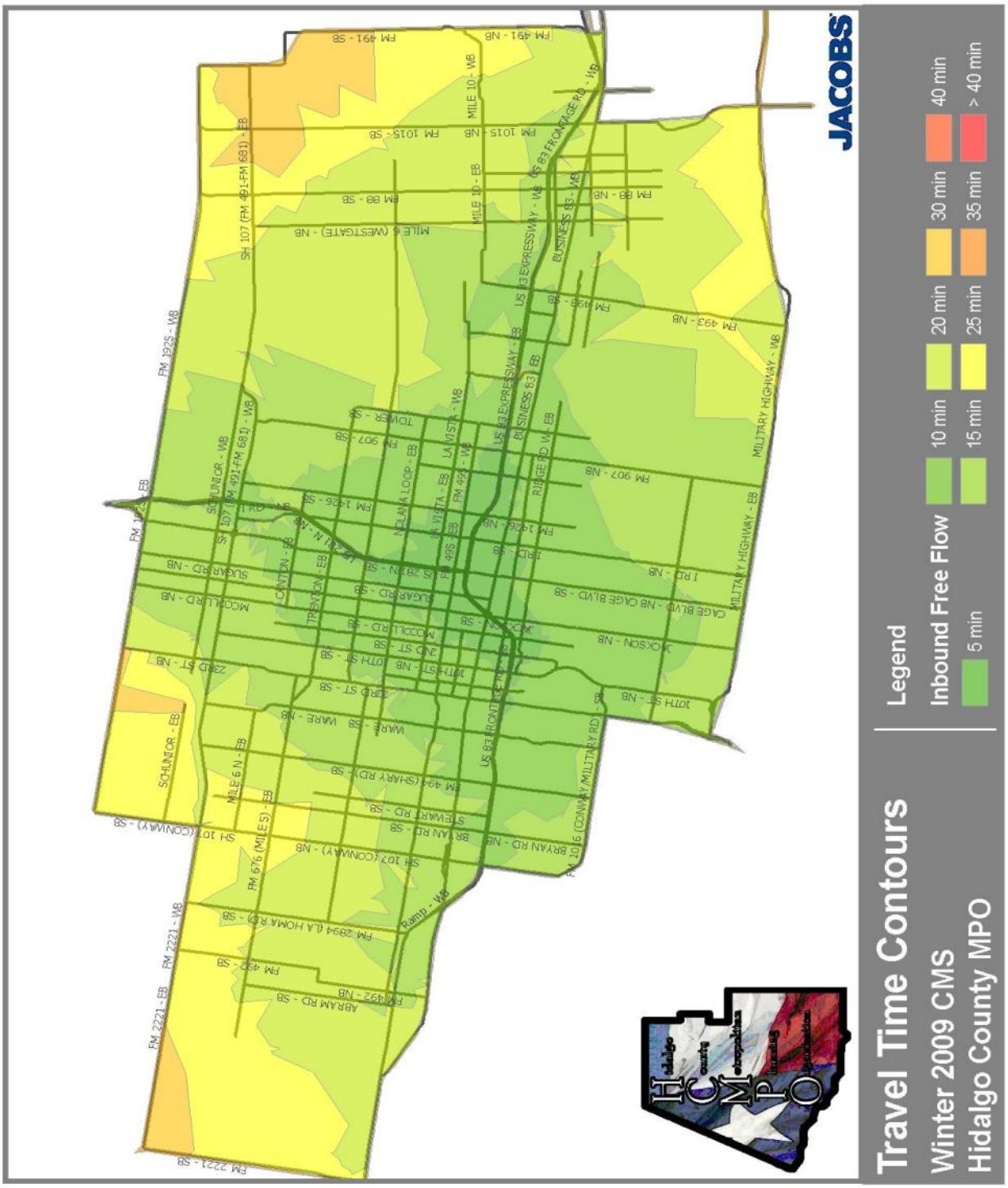


Figure 4.6.13: Travel Time Contours for Winter 2009 Inbound AM

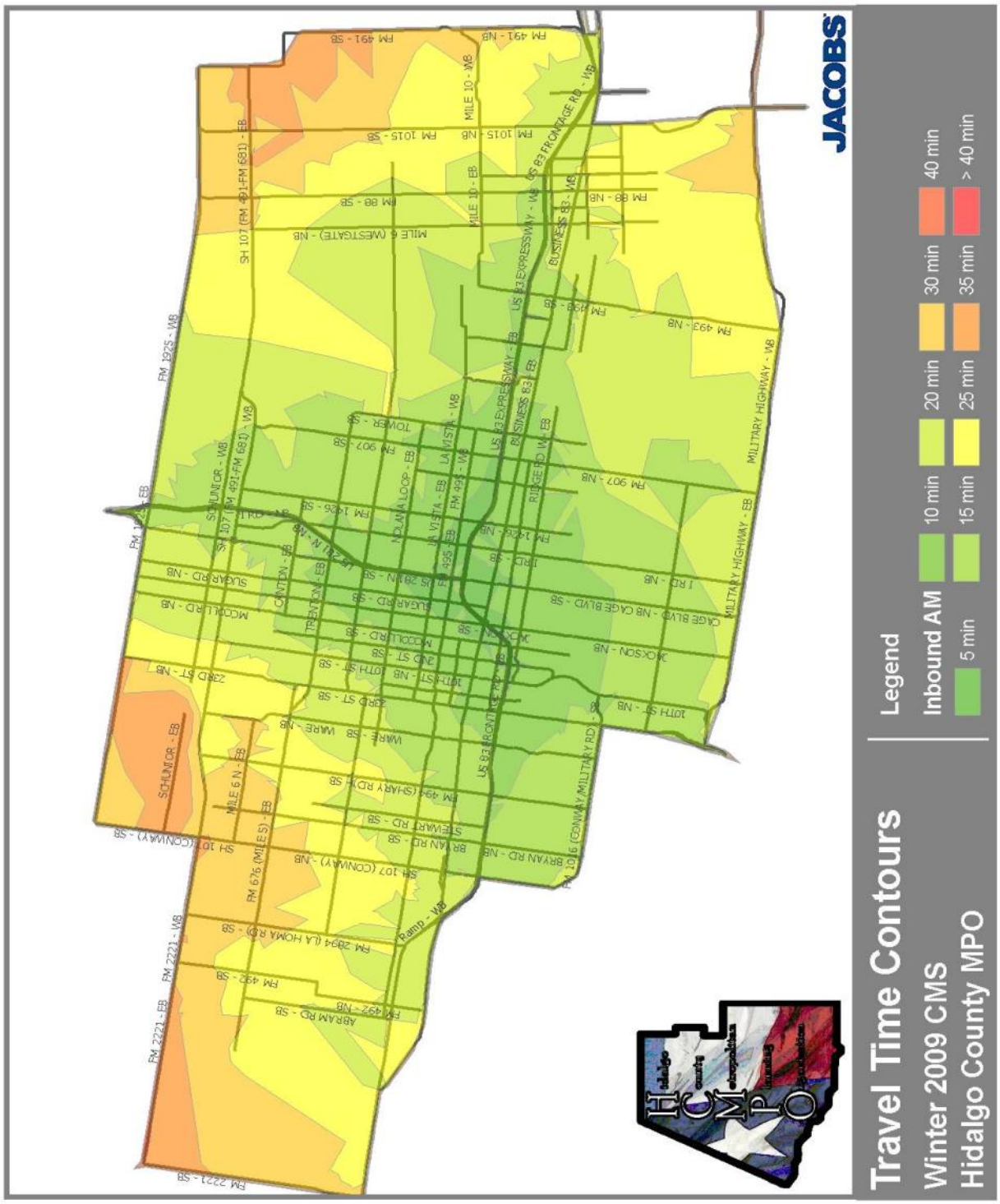


Figure 4.6.14: Travel Time Contours for Winter 2009 Outbound Free Flow

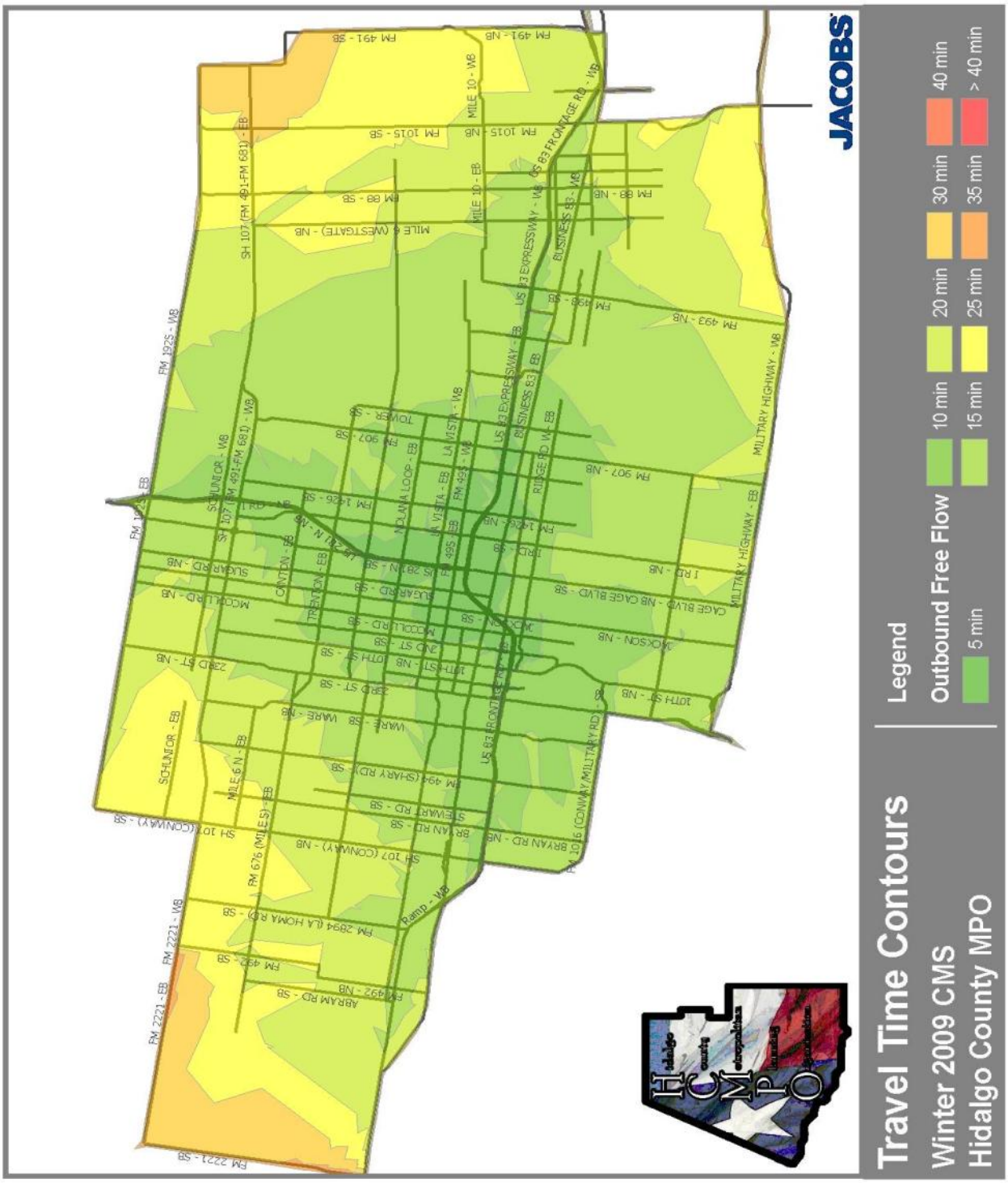


Figure 4.6.15: – Travel Time Contours for Winter 2009 Outbound PM

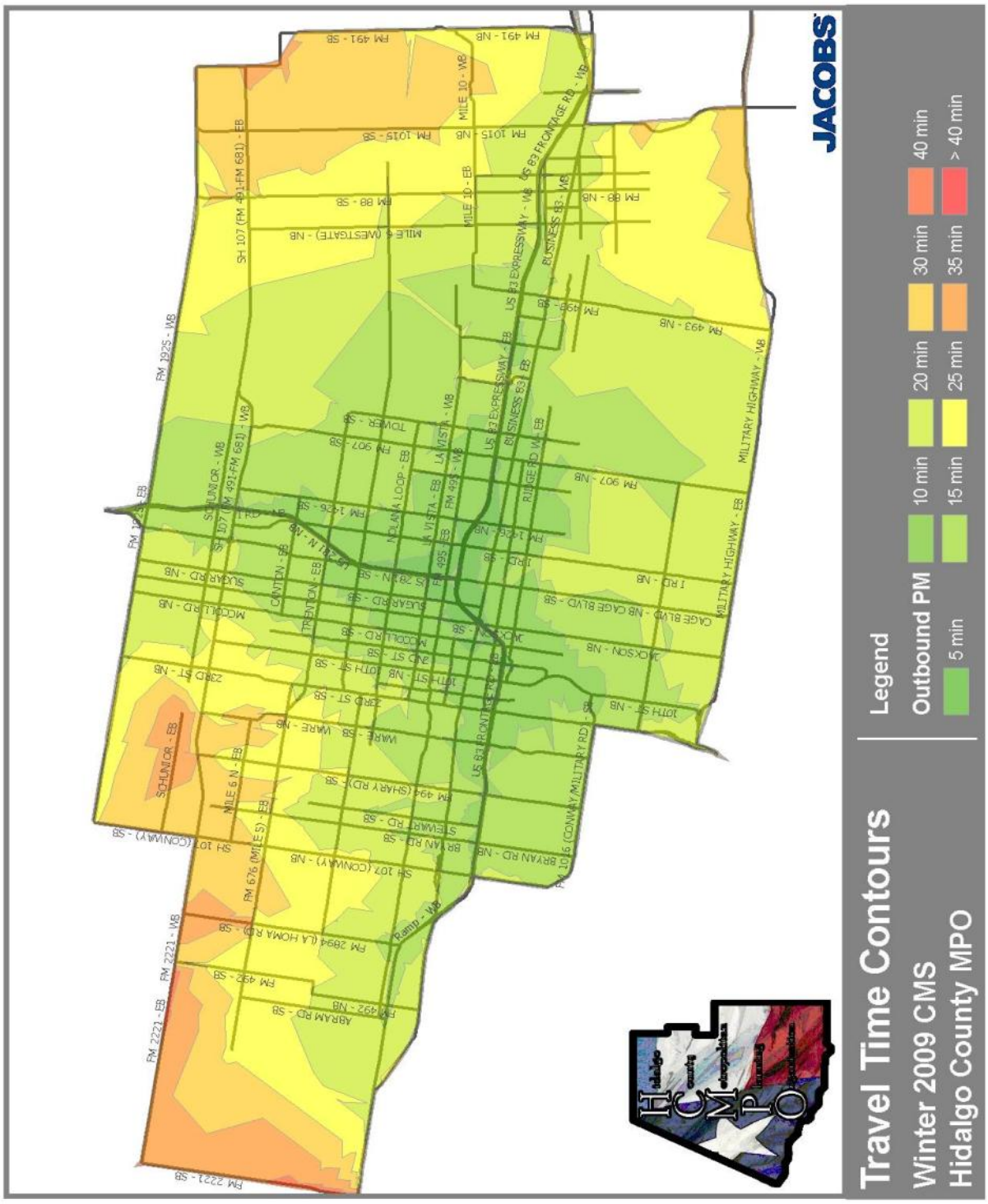


Figure 4.6.16: – Travel Time Contours for Summer 2009 Inbound Free Flow

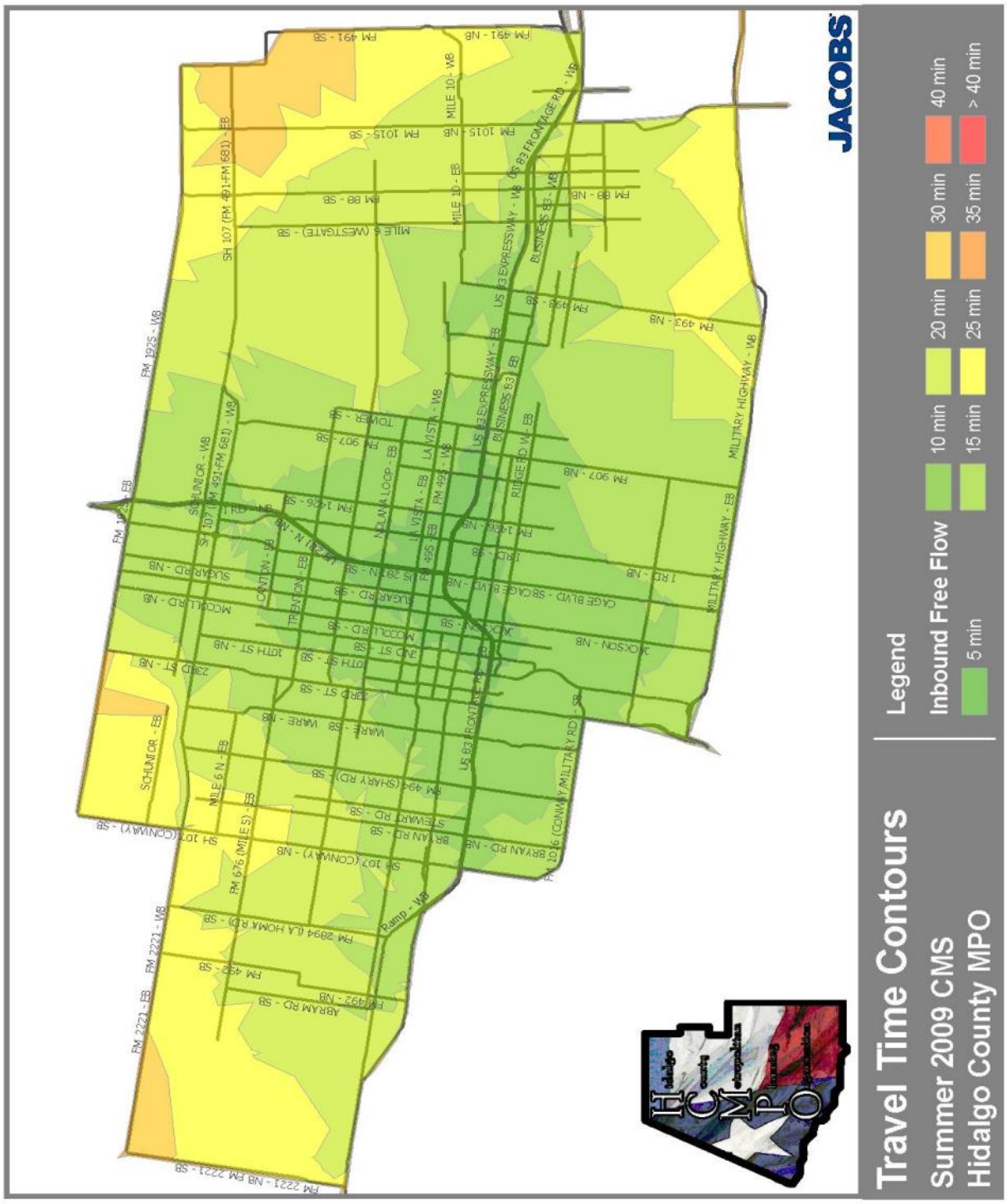


Figure 4.6.17: Travel Time Contours for Summer 2009 Inbound AM

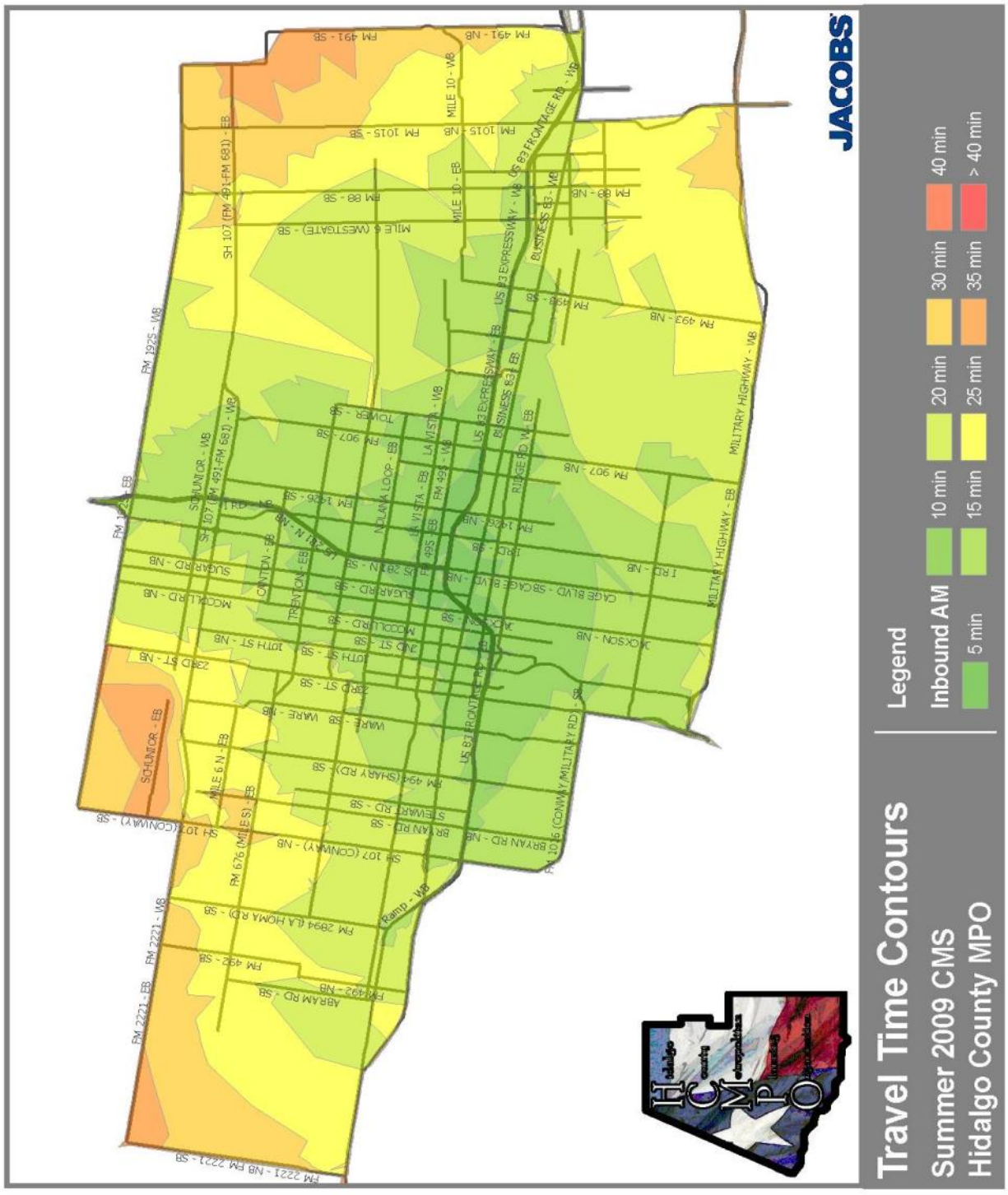
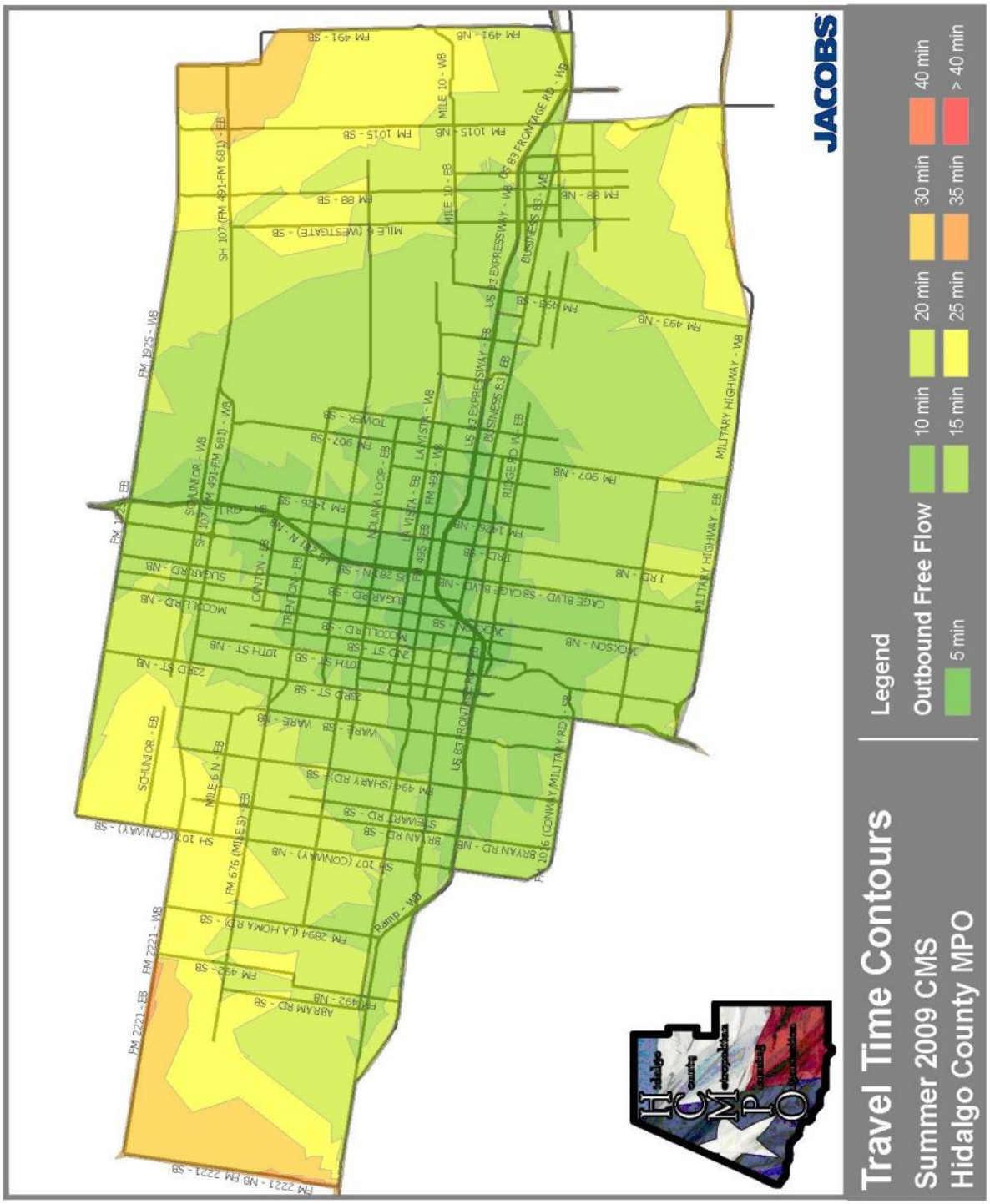


Figure 4.6.18: Travel Time Contours for Summer 2009 Outbound Free Flow

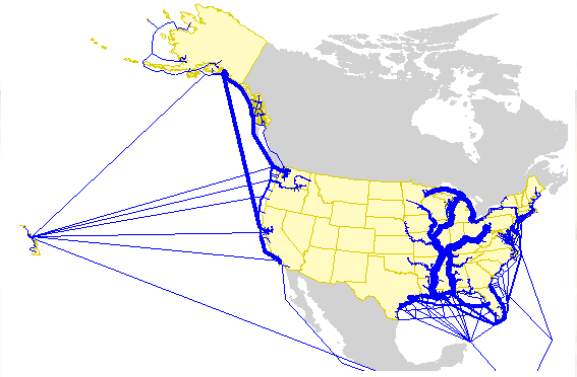


4.7 Freight Movement Element

The transportation systems of Mexico and the United States were developed to serve the movement of people and goods between populations and manufacturing centers. Trucks transport between local supply sources (warehouses) to point of consumption (retail stores or homes) and connect elements (seaports, airports, and rail and freight terminals) of the transportation system. The movement of goods by truck is a vital link in trade, and therefore is an essential component of the economic strength of an area.

The United States has a very extensive freeway and highway network which has been developed over the past 50 years. However, the historic patterns of movement have primarily been in the east-west direction and thus, the north-south connections have been less fully recognized until just recently.

In recent years, growth in trade has increased the number of commercial vehicles on our roadways and indirectly, the demand for more productive and potentially larger commercial trucks. The Federal Highway Administration (FHWA) reported in 2007 that the number of shipments currently done by truck are at 52% and are said to increase to 60% by 2035.



The growing number of large trucks and their movement has heightened public awareness of the need to improve commercial vehicle safety and preserve highway infrastructure. In 2007, The Federal Highway Administration counted 4,006 people were killed in accidents involving large trucks. Furthermore, large trucks (defined as 10,000 pounds and over) had 802 truck fatalities in 2007.

To keep trucks moving safely and efficiently while still preserving our nation's infrastructure, it is important for states to ensure that vehicles comply with size and weight standards.

4.7A International Truck Movement

Since the signing of the North American Free Trade Agreement (NAFTA) in 1994, the elimination of most barriers to trade and investment among the United States, Canada, and Mexico ceased. Further, all non-tariff barriers to agricultural trade between the United States and Mexico were eliminated, which led to the increase in truck crossings from Mexico into the United States.

The creation of maquiladora plants also known as "assembly-for-export plants" have also contributed to the growth of truck movement between borders. Maquiladora plants operate under a special Mexican customs program that permit temporary duty-free importation of production materials and preferential Mexican foreign investment regulations that permit complete foreign ownership of these production facilities.

Throughout the last several decades there have been several major transitions in the industry, as the maquiladora program has evolved. One can find many maquiladoras set up on the border areas of the United States and now, even further from the border along the Monterrey-Chihuahua-Hermosillo corridor in Mexico. Over time, maquiladoras have also become more than simply assembly plants. Today, we see more maquiladoras involved in manufacturing. As part of the North American Free Trade Agreement, tariffs on maquiladora production have significantly been reduced in the United States.

As part of the North American Free Trade Agreement (NAFTA) negotiations, special duty treatment on maquiladora production was limited starting in January of 2001. Article 303 of NAFTA became effective on that date and removed long standing across-the-board duty exemptions to maquiladoras, although Mexican duties can still be abated on NAFTA originating materials and equipment.

Mexico responded positively to continue the prosperity of both nations by creating Industrial Sector Preference programs (called PROSEC's). These programs allow for continued free or reduced duty entry into Mexico of select non-NAFTA raw materials and equipment used in certain industry sectors.

In 2008, The McAllen Economic Development Council noted that there are roughly 130 facilities operating in McAllen and 200 have set up operations in Reynosa. In FY 2008, a total of 18 new manufacturing companies were established in the McAllen area alone. With the increase in goods movement across the United States and Mexico borders, the truck traffic in the Hidalgo County Metropolitan Study Area has increased.

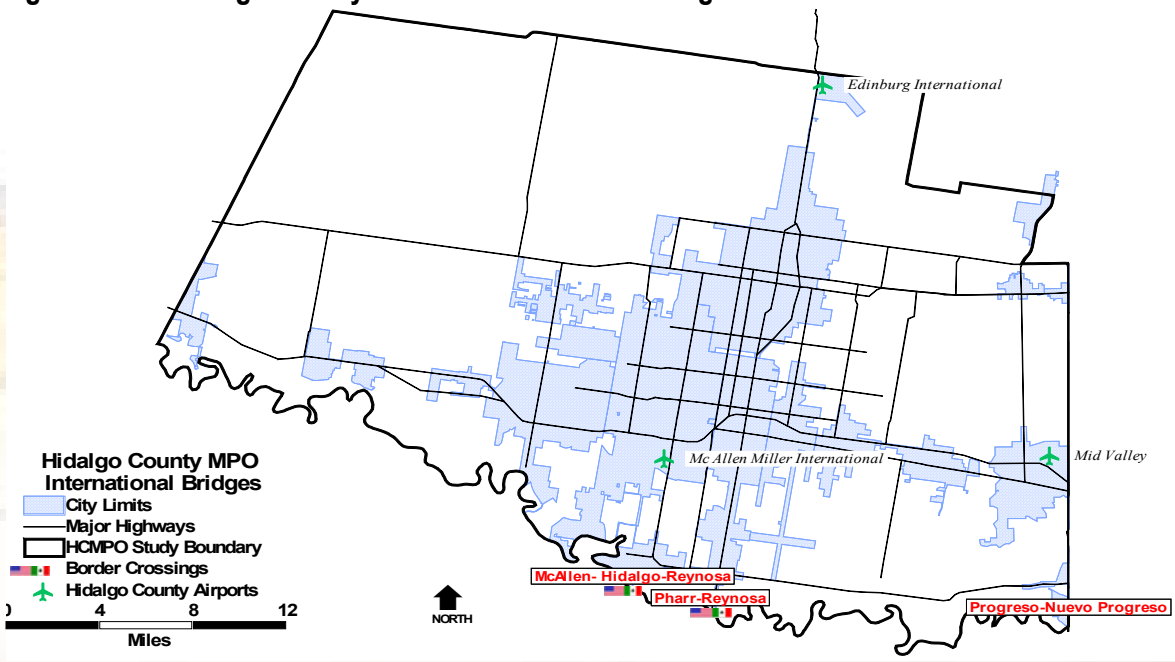
Foreign Trade Zones are sites in or near U.S. Customs ports of entry where foreign and domestic merchandise is generally considered to be in international trade. Goods can be brought into a zone without formal Customs entry or without incurring Customs duties or excise taxes unless and until they are imported into the United States. Foreign Trade Zones are intended to promote U.S. participation in trade and commerce by eliminating or reducing the unintended costs or obstacles associated with U.S. trade laws.

In 1967, former Mayor Paul G. Veale led efforts to establish McAllen Foreign Trade Zone No. 12 on South 33rd Street, south of McAllen near Reynosa. The zone formally opened in 1972 and has the distinction of being the nation's first inland free-trade area. The original McAllen Foreign Trade Zone encompassed 80 acres of developed land that contains more than 575,000 square-feet of warehouse and office space. There is also a Foreign Trade Zone designation site at the McAllen-Miller International Airport to facilitate air cargo needs. Under U.S. and Mexican laws and NAFTA provisions, the Foreign Trade Zone designation offers specific cost-saving opportunities to manufacturers in which products can be brought into the Foreign Trade Zone duty-free. While in the Foreign Trade Zone, components can be manipulated or stored in a variety of ways. Services extend to include full logistic support services that including public warehouse services. Some of these services include:

- Warehouse & Distribution
- Vendor Managed Inventory / Supplier Malls
- Quality Inspection and Testing
- Yard Management
- Rail Services
- Outside Storage
- Transportation
- Pick and Pack
- Export Packing
- Labeling
- Cross Dock
- Kitting
- Executive Office Leasing
- Local Pickup and Delivery

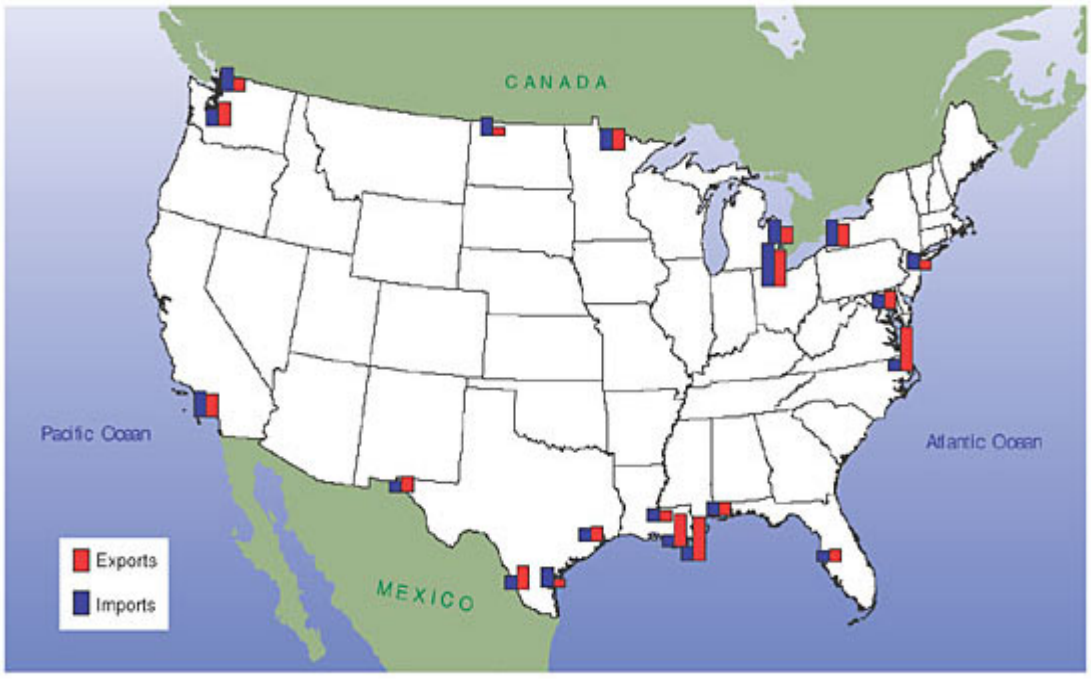
There are three existing ports of entry in Hidalgo County (Figure 4.7.1): Progreso-Nuevo Progreso International Bridge, Pharr-Reynosa International Bridge and McAllen-Hidalgo-Reynosa International Bridge. Two ports of entry, Pharr-Reynosa and Progreso-Nuevo Progreso, carry northbound and southbound commercial truck traffic. The McAllen-Hidalgo-Reynosa International Bridge was closed to northbound commercial traffic starting in September of 2006 as vehicles began to be diverted to the newly constructed Pharr-Reynosa International Bridge. According to the Homeland Security Department, 1994 provisions require for trucks carrying freight across the border to describe their cargo in advance to customs officials using electronic messages. The electronic manifest must be received at least 30 minutes before the truck attempts to enter the United States. The information sent is compared with law enforcement and commercial databases to target potentially dangerous shipments that may need to be inspected. Mislabeled cargo or a shipper's record of past violations may also cause cargo to be labeled high risk.

Figure 4.7.1: Hidalgo County's Active International Bridges



Since 1926, the McAllen-Hidalgo-Reynosa International Bridge has served the interests of the U.S. and Mexico. The McAllen-Hidalgo-Reynosa area has established itself as a leading industrial border location center and serves to facilitate trade between Mexico and the United States. More maquiladoras continue to relocate to this area yearly, as compared to any other industrial border location in South Texas. Maquiladoras have created a market for goods and services that amount to several hundred million dollars annually. The McAllen-Hidalgo-Reynosa International Bridge has not only served the maquiladora industry, but expanded and grown the agricultural produce industry as well. Once produce freight crosses this international bridge, the three main distribution locations that the produce freight delivers to: Chicago, New York and Atlanta.

Figure 4.7.2: Top Gateways for International Freight in the United States.



Source: U.S. Department of Transportation, Federal Highway Administration, Freight Analysis Framework, 2002.

After 30 years of efforts to construct an international bridge to the City of Pharr, success was achieved with the establishment of Pharr-Reynosa International Bridge in 1995 and has become one of the major global gateways to Mexico since. The bridge now handles most of the commercial truck traffic moving north between Harlingen, 30 miles east, and Laredo, about 175 border miles west.

The Pharr-Reynosa International Bridge is well known for its fast crossing timeframes as compared to other international bridges along the border. The ease and quickness in crossing at this border is due to the use of advanced screening methods utilized. U.S. Customs officials have installed this screening equipment at drive through points and carry portable units as well. The use of portable units allows trucks to be processed quicker and more conveniently, as docks have the ability to handle 50 trucks at a time.

The Progreso/Nuevo Progreso International Bridge has been in operation since 1952. During the first years of operation, the bridge had relatively low crossings for pedestrians, automobile, and commercial traffic. Beginning in the 1970's, the bridge experienced an increase in all three categories of crossing was seen. In 1981, Cargill, Inc. constructed an elevator at this location to facilitate exportation of corn and grain to Mexico. The exportation of agricultural products has continued to increase, with currently four elevators exporting agriculture products like corn, grain sorghum, cotton seed, and beans to Mexico. The signing of the NAFTA agreement created a substantial increase in commercial traffic in both directions, which then led to remodeling of existing lanes and construction for a new commercial truck lane. . Traffic increase was substantial that construction for a new commercial truck lane. The remodeling and construction phase of this bridge has adequately served both communities on the U.S. and Mexico side by making travel for pedestrians, automobiles, and commercial traffic easier and free flowing.

The Anzalduas International Bridge officially broke ground in June 2007. It is located 3 miles from the McAllen-Hidalgo-Reynosa International Bridge, with two southbound and northbound lanes, along with a pedestrian crossing. The 2.7 mile long bridge is the shortest passage between the Mexican toll highway (Arapista) and major U.S. transportation corridors. This project required extensive communication and coordinated construction efforts from both countries. The bridge connects South McAllen and Mission international trade areas to the west end of Reynosa, where many maquiladoras and other cross-border businesses are located. This helps to facilitate just-in-time delivery, allowing companies to keep inventory costs down, progress trade with Monterrey, and is the most efficient way for business traffic from northern Mexico to reach the United States. The bridge has been expected to create hundreds of new jobs throughout the next few years.

The Donna-Rio Bravo International Bridge is being built near U.S. Highway 281 and FM 493. Several rural cities have joined together to manage this international bridge such as; Edcouch, Elsa, La Villa, Donna, Weslaco and Mercedes. The bridge will not only support economic development for a free trade corridor between here and San Antonio, but bring new commerce to the area. San Antonio and Rio Bravo will benefit immensely from the international bridge. Rio Bravo is one of the largest border cities between Mexico and the United States that does not have an international bridge crossing.

Figure 4.7.3: Freight Movements In/Out Hidalgo County

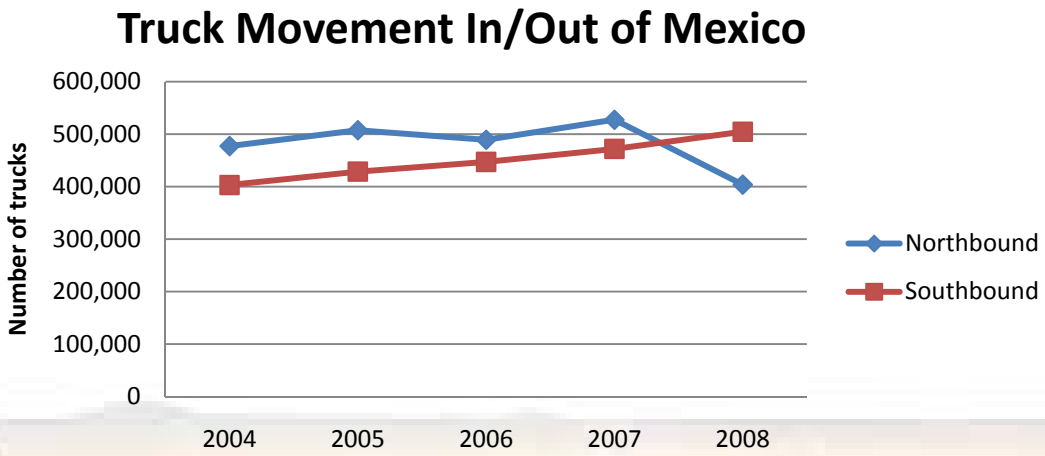


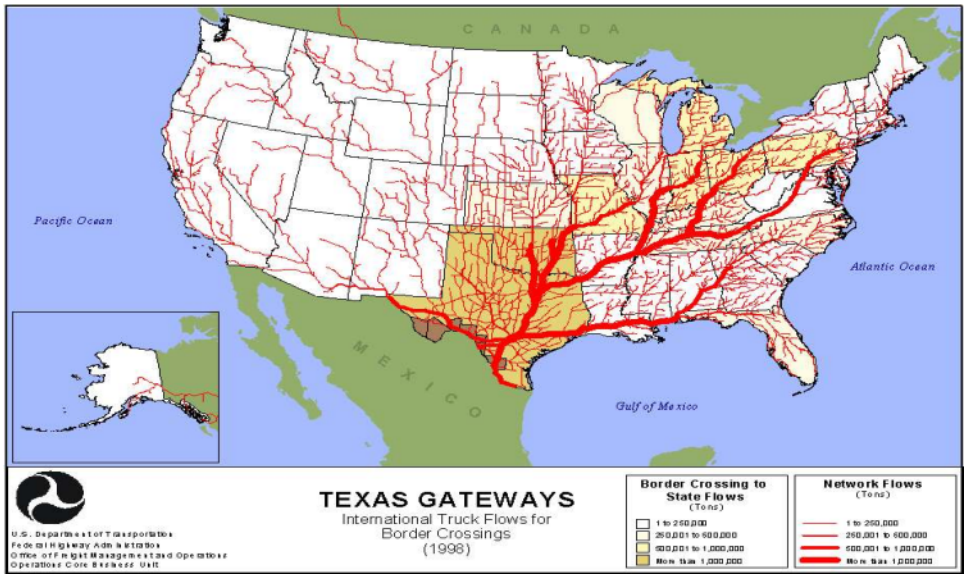
Figure 4.7.3 shows the historical growth trends of freight movements entering Hidalgo County through the International Bridges. The truck traffic was not significantly affected by the tightening of US Customs inspections after September 2001 but a decrease was shown in northbound traffic starting in 2007 and falling since. This pattern can be attributed to the recession in the economy as companies are not in the same financial positions as years before when the U.S. economy was thriving.

4.7B Freight Movement through Trucks

Most international commercial movements move to and from major ports and border gateways (Figure 4.7b.1). Truck traffic is expected to grow throughout the state over the next 20 years. Much of the growth will occur in urban areas and on the Interstate highway system. Approximately 27 percent of truck traffic involves in-state shipments, and 13 percent involves trucks traveling across the state to other markets. Forty-one percent of the average annual daily truck traffic was not identified with a route-specific origin or

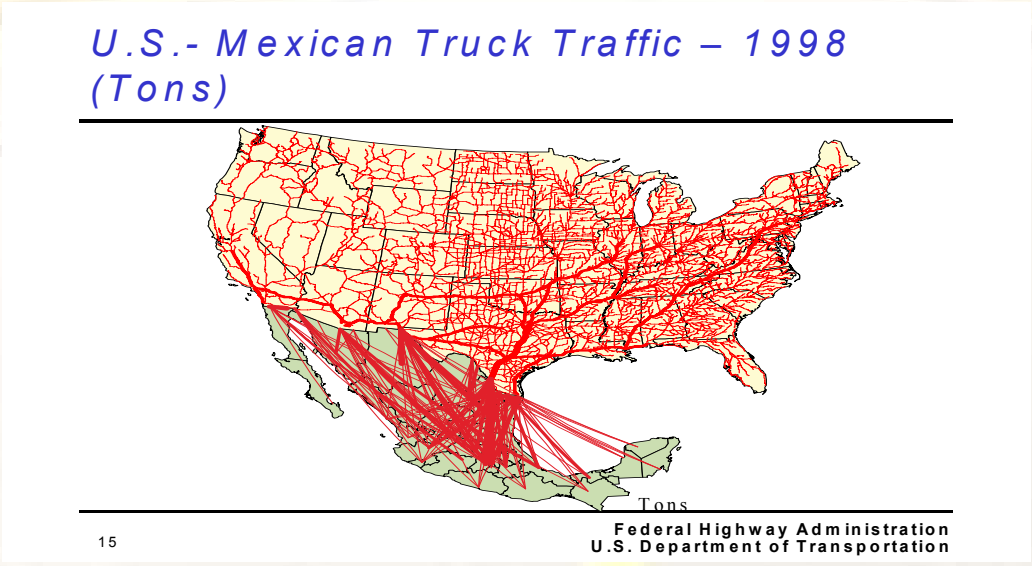
destination. International trade moving through Texas is expected to grow at a faster pace than domestic trade over the next 20 years.

Figure 4.7.4: International Truck Flow for Border Crossings



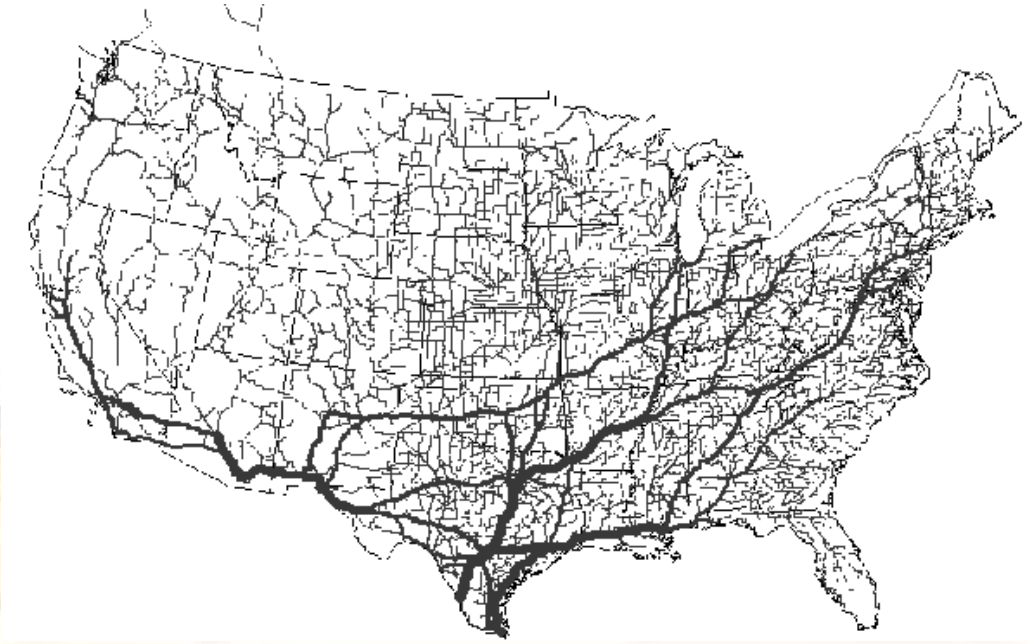
U.S.-Mexico trade crossing the state's numerous border facilities will soon be one of the fastest growing crossing segments in the world. The U.S. imports and exports more goods across its borders than any other country in the world as shown in figure 4.7b.2.

Figure 4.7.5: U.S. / Mexico Trade Crossings



Understanding future freight activity is important for matching infrastructure supply demand and for assessing potential investment and operational strategies. To help decision makers identify areas in need of capacity improvements, the U.S. Department of Transportation developed the Freight Analysis Framework (FAF), a comprehensive national database and analysis tool that examines freight flows for the truck, rail, water, and air modes. FAF also forecasts freight activity in 2010 and 2020 for each of these modes. The figure below shows the estimated truck traffic on the United States Highway systems in the year 2020.

Figure 4.7.6: U.S./Mexico Truck Traffic on U.S. Highway Network, 2020 (Tons)



The U.S. freight transportation network moves a staggering volume of goods each year and will continue to increase as shown in the figure above. The movement of bulk goods, such as grains, coal, and ores, still comprises a large share of the tonnage moved on the U.S. freight network. However, lighter and more valuable goods, such as computers and office equipment, now make up an increasing proportion of what is being moved. As shown in Table 4.7a, trucks moved a large percentage of the tonnage and value of shipments, followed by rail.

Table 4.7a: Freight Shipments by Tons and Value

Mode	Tons (Million)			Value (Billion $)		
	1998	**2010**	**2020**	**1998**	**2010**	**2020**
Domestic						
Air	9	18	26	545	1,308	2,246
Highway	10,439	14,930	18,130	6,656	12,746	20,241
Rail	1,954	2,528	2,894	530	848	1,230
Water	1,082	1,345	1,487	146	250	358
Total	*13,484*	*18,820*	*22,537*	*7,876*	*15,152*	*24,075*
International						
Air	9	16	24	538	1,198	2,284
Highway	419	733	1,069	772	1,724	3,131
Rail	358	518	699	116	248	432
Water	136	199	260	17	34	57
Other*	864	1,090	1,259	NA	NA	NA
Total	*1,787*	*2,556*	*3,311*	*1,444*	*3,203*	*5,904*
TOTAL	**15,271**	**21,376**	**25,848**	**9,320**	**18,355**	**29,980**

* Other includes international shipments moved via pipeline or unspecified mode

The Texas Department of Transportation (TxDOT) has no legal authority to prohibit the use of any highway by any class of vehicle. In other words, TxDOT cannot discriminate between types of vehicles, as long as they are within the weight and size limits established by law. Local authorities may adopt traffic regulations controlling the movement of trucks on public roads within their jurisdiction, consistent with state law. By passage and enforcement of a city ordinance and TxDOT approval, a city may re-route trucks from a certain highway route within their corporate limits to an alternate highway route.

Occasionally, TxDOT is requested to assist local authorities in establishing alternate highway routes for trucks going through their city. These cities submit proposals for re-routing on the state highway system in writing to the TxDOT district office for review and comment. The Freight Sub-Committee reviewed the existing Designated Truck Routes and some cities have considered re-routing truck traffic from certain state maintained highways within the city limits. The cities follow the route guidelines that were developed to facilitate the review of each request and to assure uniformity in the treatment of alternate routes throughout the state. Guidelines developed are as follows:

- If an alternate route affects another city, the city should obtain written consent from the affected city.
- Weight and size carrying capability of the alternate route should be reasonably comparable.
- An alternate route should not be confusing to follow and should be selected so as not to jeopardize public safety.
- The city assumes all responsibility for the route, including enforcement and any other legal matters.
- Any route involving the Interstate System should be approved by the Federal Highway Administration (FHWA). The Traffic Operations Division (TRF) coordinates the necessary approval with the FHWA.

Once the member cities in the Freight Sub-Committee review the established route guidelines, the cities are to follow the process of establishing an alternate truck route as follows:

1. City submits proposal for truck route to TxDOT district.
2. District reviews proposal and forwards it to TRF for approval.

3. TRF approves (or disapproves) proposal (obtaining FHWA approval if necessary) and notifies district.
4. District notifies city of approval.
5. City passes ordinance establishing truck route.
6. District and/or city install signs.
7. District provides TRF with map clearly defining the route.
8. TRF forwards map to Motor Carrier Division (MCD).

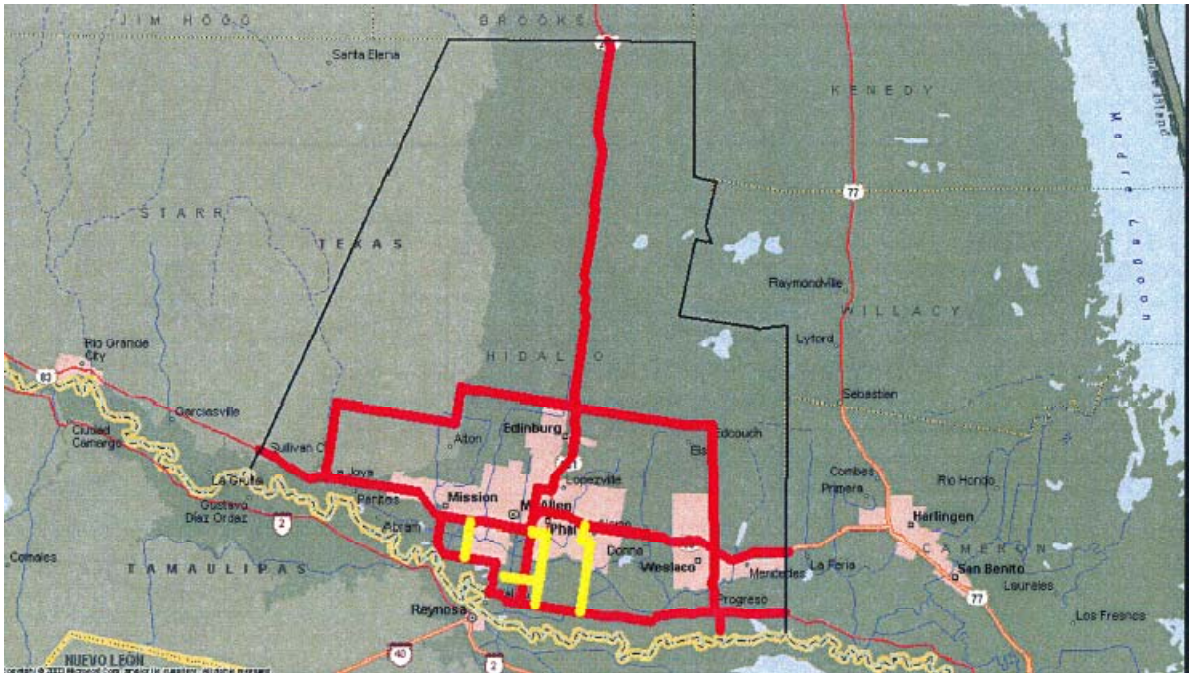
4.7C Non-Radioactive Hazardous Materials Routing

In 1999, the Texas legislature passed a law designating TxDOT as the permitting agency for hauling hazardous cargo to all carriers and approving all non-radioactive hazardous materials (NRHM) routes in Texas. Rules for NRHM routing are contained in the Texas Administrative Code under Title 43, Sections 25.101-25.104. These rules authorize a political subdivision of a state to establish NRHM route designations consistent with the federal regulations (Title 49, Code of Federal Regulations, Part 397, and Subpart C). As the state routing agency, TxDOT is required to approve all new NRHM routing designations or revisions to existing routing designations. A city cannot simply pass an ordinance to establish an NRHM route. A new NRHM route or modification to an existing route must be established in accordance with state and federal regulations.

The HCMPO conducted a study that identified viable routes for non-radioactive hazardous material transportation within Hidalgo County. The primary objective of the Freight and hazardous Material Movement Study was to assess existing non-radioactive hazardous material hazardous material routes in Hidalgo County for the Lower Rio Grande Valley Development Council—Hidalgo County Metropolitan Planning Organization. This study will assist Hidalgo County decision makers in designating hazardous material routes and security of hazardous freight as well as the efficiency and economy of freight movement within the county.

The main purpose of this study was to assess the risks associated with use of all current designated and non designated truck routes for hazardous materials transportation and to provide alternative routing options, current locations of storage warehouses, and current population and employment patterns. The map below considered existing routes that are already in use but not designated for hazardous material transportation. These routes are shown in red throughout the report. Alternative routes are those that may be used instead of existing routes. These routes are shown in yellow throughout the report.

Figure 4.7.7: Existing and Alternative Non-Radioactive Hazardous Materia Transportation Routes



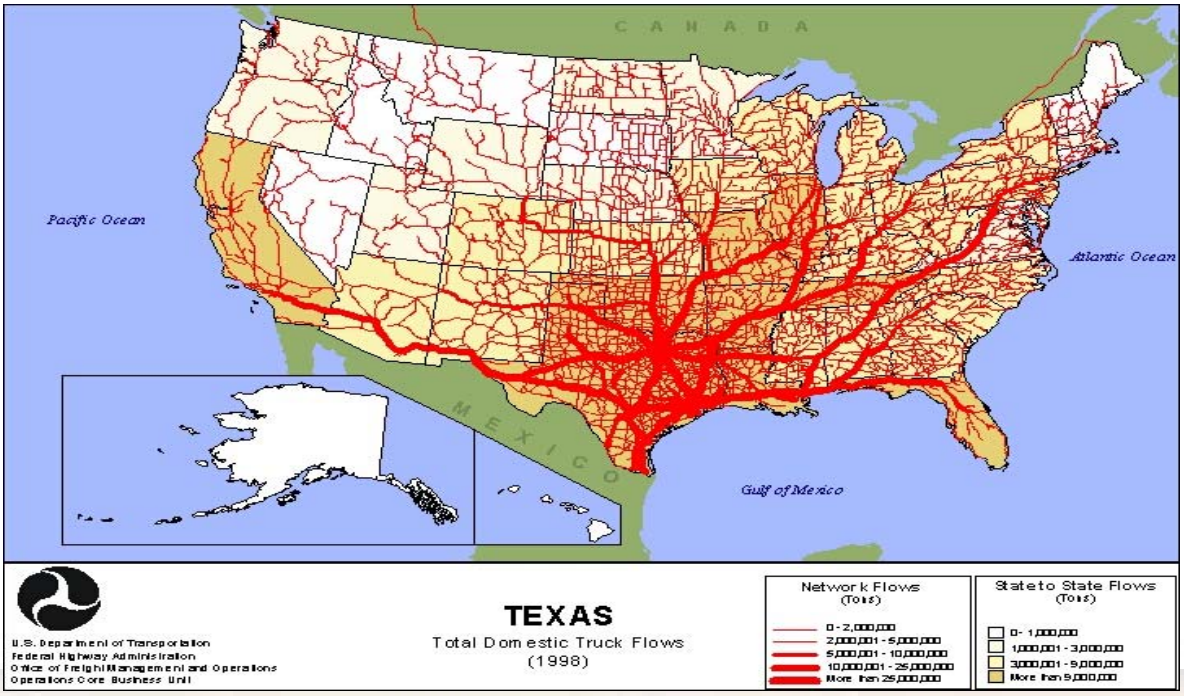
The map above illustrates the existing and alternative routes that have been analyzed and proven to be viable for designation as non-radioactive hazardous material transportation routes.

The designation of actual truck routes has raised some important issues throughout the county. By designating truck routes, a community can concentrate on diverting these bigger and heavier vehicles onto a few designated routes. To keep trucks moving safely and efficiently and preserve our nation's infrastructure, States must ensure that vehicles comply with size and weight standards. The bigger and heavier vehicles wear out the designated pavement faster that the non-truck routes and thus, by overlaying the truck routes via the Pavement Management System (PMS), strategies can be formulated by staff to meet the goal of preserving our transportation network.

Truck traffic is expected to grow throughout the state over the next 20 years. Much of the growth will occur in urban areas and on the Interstate highway system (Figure 4.7c.1). A large component of the U.S. economy is trucking, and thus, the HCMPO has become increasingly concerned about users on the road (such as bicyclists) that share the roadways with trucks. For obvious safety reasons, it would not be to our best interest to mix the designated bicycle routes with the designated truck routes. Rather we should build

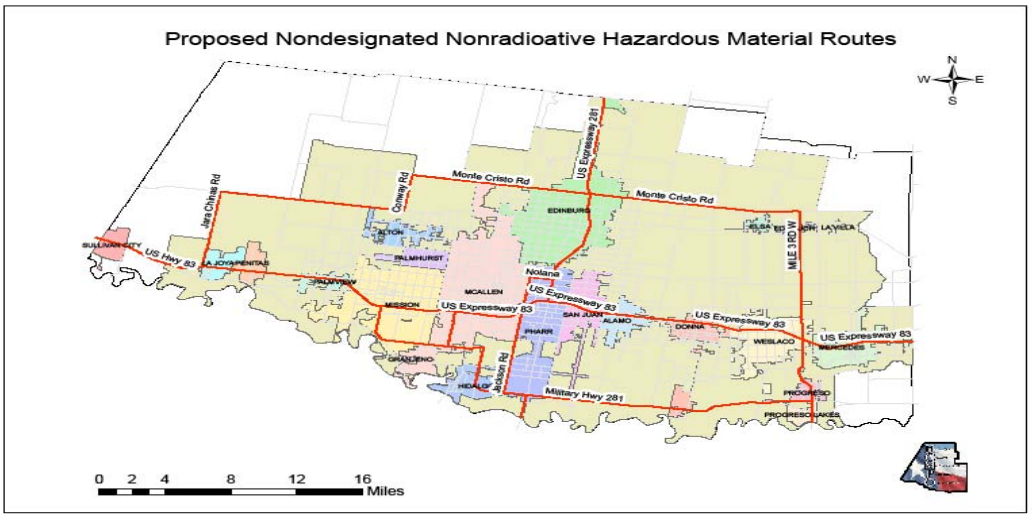
these routes to a higher standard for carrying the additional weight. This will also increase safety as the higher design standards are implemented.

Figure 4.7.8: Texas Domestic Truck Flow



The HCMPO and TxDOT has worked to coordinate efforts in assisting Hidalgo County and its member cities in developing and adopting a Non-Designated Hazardous Cargo Route throughout the metropolitan area. There were several beneficial and progressive meetings and workshops held that provided an opportunity to review the current Non-Destination Hazardous Cargo Route, and to coordinate among the entities a proposed route for the metropolitan area. As a group, the participants prepared for the long venture of conducting analysis of the proposed routes for the Non-Radioactive Non-Destination Hazardous Cargo.

Figure 4.7.9: Proposed Non-designated Non-radioactive Hazardous Material Routes.



In addition, the group coordinated with the neighboring counties of Cameron and Willacy to establish some connectivity in the Rio Grande Valley. The analysis provided justification for the routes chosen, and enabled them to prepare for two separate public hearings in the cities of Donna and McAllen. After the public hearings, a proposal was submitted from the region. The cities are awaiting approval from TxDOT before adopting the Non-Destination Hazardous Cargo Routes in their city ordinances.

4.7D Airports

The McAllen-Miller International Airport (MFE) is a regional air transportation node that is conveniently located in the center of the Rio Grande Valley, seven miles from Reynosa, Mexico and three international bridges, two miles from the center of the City of McAllen, ¼ mile from highway US 83. Miller International Airport is serving the fourth fastest growing metropolitan area in the United States.

The airport's new $26 million dollar terminal, inaugurated in September 1993, has frequent daily flights to Dallas and Houston.

MFE's mission is to *foster an aviation environment that promotes air services in an economically viable, safe, secure, convenient and competitive manner for the residents of the Rio Grande Valley and our international customers.*

The terminal was designed with expansion in mind and will accommodate for growth 30 years into the future, with a runway capable of landing Boeing 757's. An aircraft maintenance facility, one fixed base operator, and several air charter services are located on the airport property. There are also eight air cargo companies based in our Air Cargo Facility offering quick door-to-door shipping and delivery services. According to the updated 20-year Master Plan for MFE, runway 13/31 will be extended to 10,000 ft. In addition, a parallel runway will be added. An expanded cargo apron will be on the south side of the airport. In early 2006, Gate 5 opened on the main concourse due to the arrival of Delta Connection. In 2008, a terminal capacity study was conducted to assess the future needs of the airport and possible terminal expansion to include eight (8) gates, larger ticketing/office area, TSA security area queue. Paid parking at the airport was implemented on November 15, 2007.

South Texas International Airport at Edinburg (KEBG) is a public-use airport located (17 km) north of Edinburg, a city in Hidalgo County. The airport is owned and operated by the City of Edinburg. It received its current name in July 2007, prior to which it was known as **Edinburg International Airport.** The City of Edinburg recently submitted a "T.I.G.E.R. grant application for airport and trade zone improvements and development. The grant application was for 42 million dollars which was submitted in September of 2009.

The South Texas International Airport at Edinburg which comprises 580 acres was designated as a User Fee Airport on January 11, 2001, by the U.S. Customs Service. A User Fee Airport is a special designation whereby Customs are made available on a fee basis to process aircrafts carrying passengers and cargo into the U.S. Customs inspectors are also available to accept entries of cargo and to collect duties and fees upon arrival. The airport has 198 hectares and one runway designated 14/32 with a 5,000 x 75 ft (1,524 x 23 m)

asphalt surface. For the 12-month period ending September 29, 2005, the airport had 4,800 general aviation flights, an average of 13 per day.

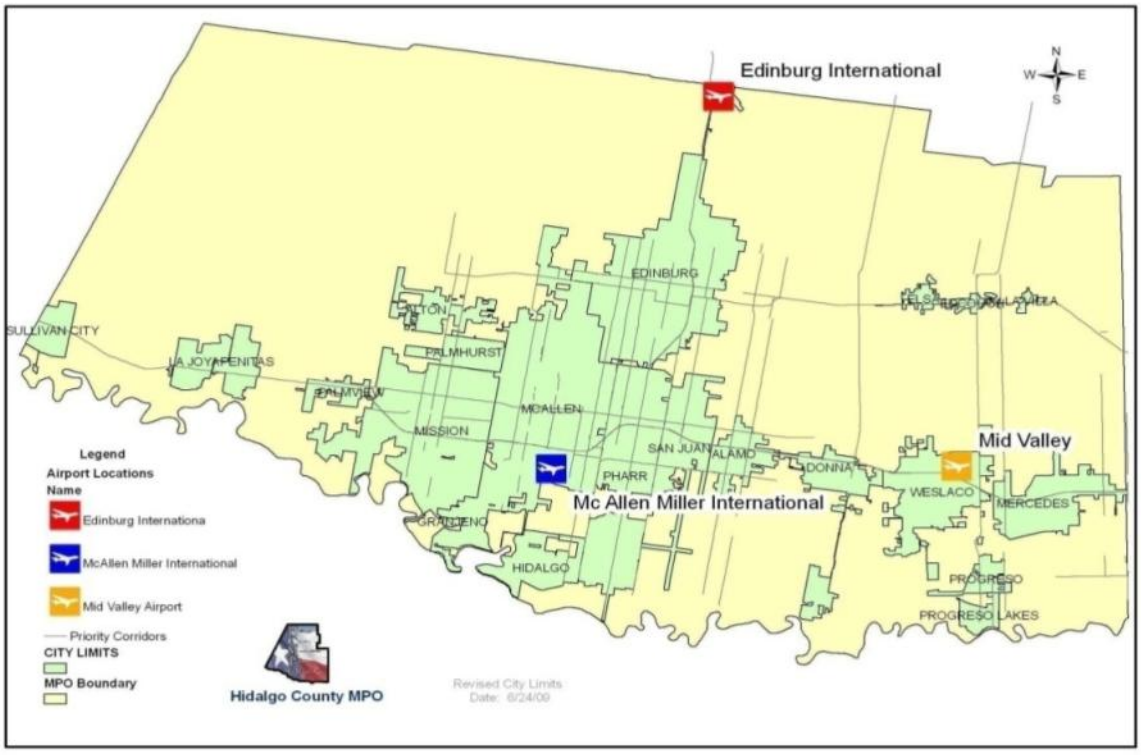
As the only user fee designated airport in South Texas and one of three in the State of Texas, the South Texas International Airport at Edinburg is part of a plan to develop the airport as a commercial air cargo center in South Texas. This designation will increase commercial activity and help attract companies to locate in and develop the recently designated 165-acre Airport Industrial Park. Along with the user fee designation, the airport has been designated as a Foreign-Trade Zone, which will further add to the future development of the airport.

Located just a few highway miles from the regional commercial centers of Harlingen and McAllen, the Weslaco Mid Valley Airport is poised to serve as the premiere corporate aviation facility serving the heart of the Rio Grande Valley of Texas. The Gulf of Mexico and South Padre Island lie at Weslaco's front door for the vacation traveler. With 175 acres designated as Foreign Trade Zone, access to Mexico and NAFTA-enhanced trade and manufacturing is closer than the five miles to the Progreso International Bridge...it is on the airfield. Mid Valley Airport is classified as a General Aviation airport, with a based aircraft fleet mix of corporate jet aircraft, high performance turboprop aircraft multiengine and single engine pleasure and training aircraft.

The services that support Mid Valley Airport are: 5,000-Foot Lighted Runway with instrument approach capability, including a GPS. One (1) mile visibility minimum and Automated Weather Reporting, (AWOS). There is 24-Hour Self-Serve Fuel Station to include major airframe and Power plant maintenance service. There is Aircraft Training and Instruction for customers. Pilots' lounge is available. Mid Valley Airport is proud to serve the region as a reliever airport to the two commercial air centers: McAllen and Harlingen.

The Mid Valley Airport Master Plan provides a blueprint for development to meet the challenges of the future and ensure that the airport remains a viable, safe, and productive facility. The plan is not intended to happen overnight. Rather, it will require long term community development, coordination, and cooperation over many years. The figure below geographically notes the three airports in Hidalgo County.

Figure 4.7.10: Hidalgo County Airports

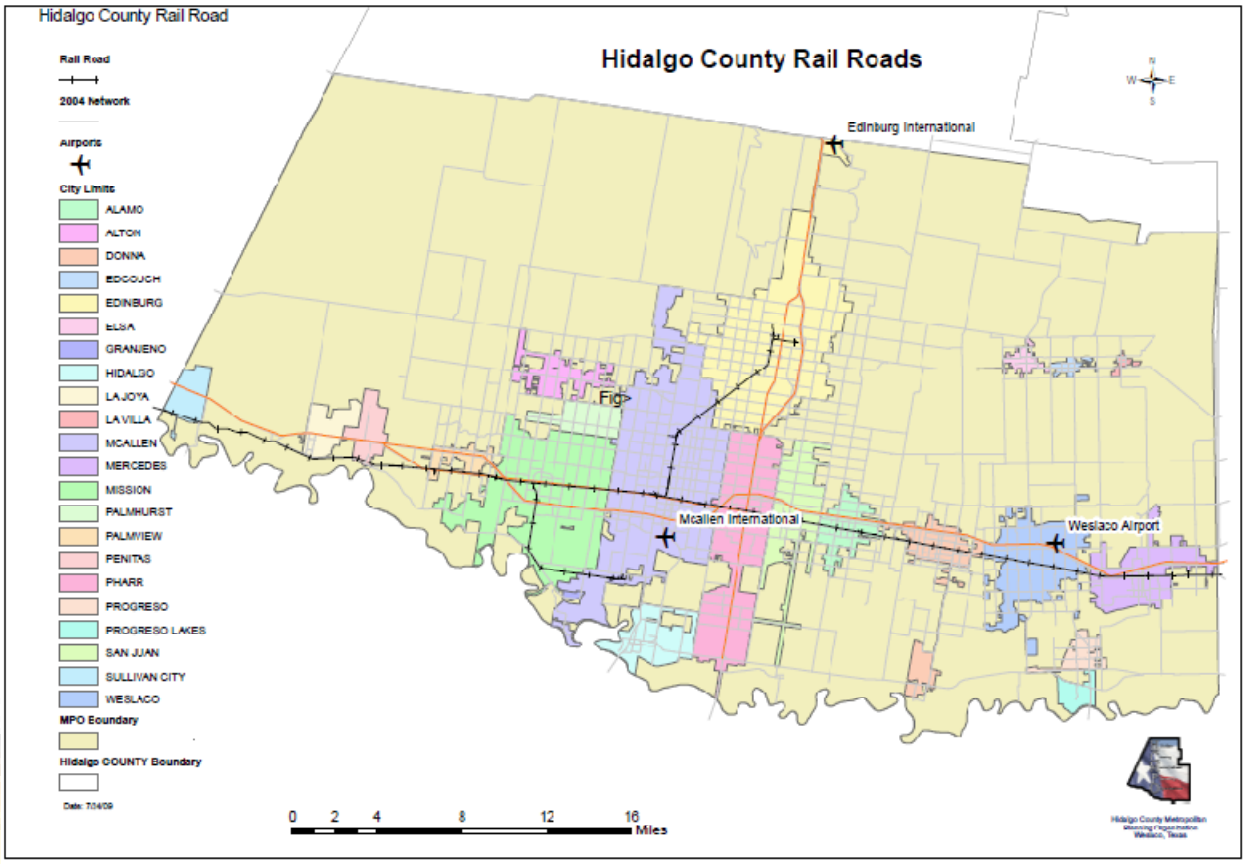


4.7E Freight by Rail

Rio Valley Switching Company ("RVSC") is the *"Valley Railroad"* interchanging with Union Pacific Railroad (www.uprr.com) in **Harlingen** and extending west 55 miles / 88 km to **Mission**, **Edinburg** and to the **McAllen Foreign Trade Zone**. RVSC also extends Northwest 11 / 18 km miles to **Santa Rosa**. RVSC is a subsidiary of Ironhorse Resources, Inc.

RVSC greatly expands on the services offered by major Class I Railroads by providing a personalized, dependable service. You'll receive the kind of reliable, economical shipping you need to put your business on the fast track - and keep it there.

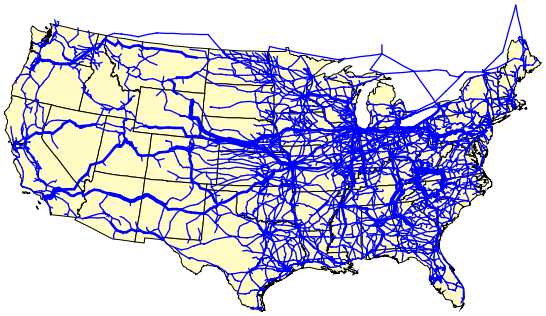
Figure 4.7.11: Rail Freight System for Hidalgo County



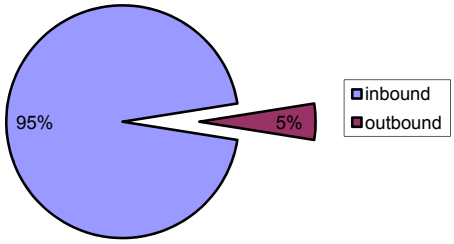
Valley Switching Co has maintained daily freight service out of Hidalgo County since March 1993. The commodities that RVSC transports into the Rio Grande Valley from northern states within USA, Canada and Mexico are: Lumber products, construction materials (gravels, sand, cement, brick and lime), paper products, steel, corn, corn syrup, salt, sugar, canned goods, metals (aluminum, antimony), plastics and beverages among others. Fresh perishables are not being transported at this time, but frozen vegetables and frozen juice concentrate are.

Figure 4.7.12: Commodities and Rail Shipments into the Rio Grande Valley

Rail Freight Flows – All Commodities - Rail Freight Density in Tons



RVSC Shipments into Rio Grande Valley



RVSC's inbound traffic is significantly greater than the outbound traffic for the Lower Rio Grande Valley. This is due to the low volume of shipments out of our area (Figure 4.7.2). Each railcar can transport anywhere from 70 to 100 tons, which is about 35,526 truckloads a year. In the year 2003, there was a total freight movement volume of 10,449 railcars. The rail freight relieves the public roads and highway increasing the ease of mobility on our roadways. Furthermore, transporting goods using rail rather than trucks saves up to 30% to 40% of freight costs for businesses.

4.8 Environmental Justice and NEPA

Title VI Legislation

No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

DOT Title VI Regulations

A recipient, in determining the types of services, financial aid, or other benefits, or facilities which will be provided under any such program…may not, directly or through contractual or other arrangements, utilize criteria or methods of administration which have the effect of subjecting persons to discrimination because of their race, color or national origin…(49 CFR 21.5(b) (2)).

In determining the site or location of facilities, a recipient or applicant may not make selections with the purpose or effect of excluding persons from, denying them the benefits of, or subjecting them to discrimination under any program to which this regulation applies

on the grounds of race, color, or national origin…(49 CFR 21.5 (b)(3)) Environmental Justice

Executive Order 12898

- No change in the legal thresholds and statutory interpretations for DOT
- Consistent with Title VI of the Civil Rights Act
- Disproportionate impacts – does not mean the programs and projects cannot move forward
- No specific format for analysis
- Integrate analysis in appropriate manner

Environmental Justice

Environmental Justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations, and policies.

Environmental Justice ensures:

- The distribution and effects of environmental problems, and the policies and processes to reduce differences in who bears environmental risks;
- Concern for the disproportionate risk burden placed upon any population group as defined by gender, age income, and/or race;
- The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to environmental laws, regulations, and policies.

The Principles of Environmental Justice include:

- Considering:

  - the composition of the affected area
  - the potential for multiple or cumulative exposure
  - the interrelated cultural, social, occupational, historical, and economic factors.

- Developing effective public participation;

- Assuring meaningful community representation;

Definition of Low Income

According to the Department of Health and Human Services poverty guidelines for 2004, low-income is a household income at or below $18,850 for a family of four.

Low Income Population

A Low-Income Population is any readily identifiable group of low income persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who would be similarly affected by a proposed FHWA program, policy or activity.

Definition of Minority

Minority means a person who is:

- Black (having origins in any of the black racial groups of Africa);
- Hispanic (of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race)
- Asian American (having origins in any of the original places of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); or
- American Indian and Alaskan Native (having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition).

Minority Population

A minority population is any readily identifiable group of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who would be similarly affected by a proposed FHWA program, policy or activity.

Definition of Effect

Adverse effect - totality of significant individual or cumulative human health or environmental effects.

Disproportionately high effect – is an effect that:

- Is predominantly born by a minority and/or low-income population; or

- Will be suffered by the minority and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority and/or non low-income population.

The **DOT Order on Environmental Justice** establishes the process for integration of Environmental Justice and Title VI Procedures in:

- Planning
- Environment
- Public Involvement
- Right-of-Way

Why Title VI/EJ?

- It makes sense
- It's the democratic thing to do
- It is required by law and regulation

Colonias in Hidalgo County

Colonia is a Spanish term for neighborhood or community. The office of the Governor defined a colonia as "...unincorporated border communities that often lack adequate water and sewer systems, paved roads, and safe, sanitary housing." Colonias flourish in counties along the Texas-Mexico Border which also includes Hidalgo County. The MPO has mapped out the office of the Governor defined colonias over the Traffic Analysis Zones (TAZ's). The TAZ's that had enough concentration of colonias to lower its median income are defined as Low Income TAZ. The following table breaks down the total number of TAZ's by level of income:

Table 4.8a: TAZ's in Hidalgo County by Income Level

Income range	Designation	TAZ
$0-$30,000	Very Low	588
$30,001-$50,000	Low	289
$50001-$70,000	Medium	39
$70,001-$100,000	High	20

ENVIROMENTAL JUSTICE ANALYSIS

The HCMPO staff in an attempt to analyze the impacts of the planning process and specific projects upon the citizens and environment of Hidalgo County performed an analysis upon the FY 2008-2011 TIP projects. The goal of this study was to determine, what, if any adverse effect and/or disproportionately high effect TIP projects may have upon the county citizens by examining proximity of the projects to various demographic groups such as age, race, income level, the impact on Colonias, and what, if any, impacts upon wetlands, wildlife refuges and state or national parks. Adverse effect is defined as the totality of significant individual or cumulative human health or environmental effects. The map in Appendix A illustrates environmentally sensitive areas. Disproportionately high effect is an effect that is, predominantly born by a minority and/or low-income population; or will be suffered by the minority and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority and/or non low-income population.

4.8A Project Impact on Colonias

Staff of the Hidalgo County MPO felt it necessary to evaluate FY 2008-2011 TIP projects and their impacts, if any, on colonias located within Hidalgo County boundaries, especially since Hidalgo County lies within a unique geographical area, that being in close proximity to Mexico and has the highest colonia population in the nation. As defined by the Office of the Secretary of State, a colonia in Texas "refers to an unincorporated settlement along the Texas-Mexico border that may lack basic water and sewer systems, electricity, paved roads, and safe and sanitary housing. Most colonias are outside city limits or in isolated areas of the county."

Information regarding data of locations and boundaries of colonias within Hidalgo County was found at The Office of the Attorney General "Border Colonia Geography" and used in the mapping process. Staff identified all colonias within the planning area of the HCMPO and generated GIS layers for visual display of the locations of the Colonias.

In addition to identifying colonia locations, staff identified and geo-coded each project from the approved FY 2008-2011 TIP. HCMPO staff felt that a ¼ mile radius from the project location could provide sufficient insight as to project impacts into and upon colonias. Furthermore, additional ¼ mile buffer zones are indicated by shaded intensity in regard to their distance from identified colonias and TIP project limits.

According to the data provided, there are a total of 1401 colonias and 25,753 total colonia acres within Hidalgo County and the HCMPO planning area. As identified in the corresponding map, staff plotted and identified by distance, the impact or intrusion any particular project within the FY 2008-2011 TIP had upon identified colonias. The outcome of staff analysis is as follows. See map in Appendix A.

- 12.62% (3,250 acres), which consist of 93 colonias, lie within a ¼ mile to TIP projects in Hidalgo County.
- 16.75% (4,314 acres), which consist of 156 colonias, lie within a ½ mile of TIP project limits;
- 20.92% (5,388 acres), which consist of 227 colonias, lie within a ¾ mile of TIP project limits; and 25.44% (6,552 acres), which consist of 287 colonias, lie within one mile of TIP project limits.
- A majority of colonias, 74.56% (19,201 acres), which consist of about 638 colonias have no direct impact from TIP project limits.

The conclusion of the data can be interpreted in several ways, however staff focused upon the positive or negative impacts upon colonias by the identified projects. One school of thought could rationale that since the data reveals that almost 75% of the colonias are not impacted directly by the TIP projects that the residents of the colonias are not being adversely, in proportion, affected in a negative manner by the project developments. However, one could also use the counter argument that only 25% of all colonias are being impacted by the TIP projects and thus there should be additional attention given to colonia areas when it comes to project selection. Staff would offer the point that the TIP projects, while not directly falling within the identified range examined (1/4 to 1 mile) of the colonias, all projects in the FY 2008-2011 TIP offer benefits to those citizens within the colonias by providing greater access into and out of the colonias and the neighboring areas.

In conclusion, staff believes that the information does not reveal any undue, disproportionate effect upon citizens living within the colonia areas. Staff would also conclude that greater examination should be given to colonias in project selection, and should develop a means for the 2010-2035 MTP update that would score projects in some portion that lie in or near colonia areas.

4.8B TIP Projects v. Minority (Hispanic) Population

In accordance with Executive Order 12898, all federal agencies such as the Hidalgo County MPO, must make environmental justice as part of its mission by identifying and addressing

disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority and low income populations. To address this requirement, the Hidalgo County MPO felt it pertinent to analyze the FY 2008-2011 TIP projects in relation to the demographic makeup of Hidalgo County. See Map in Appendix A.

Hidalgo County is one of the most unique counties in the nation, where the "minority" population, that being Hispanic, actually serves to be the majority of citizens residing in the area. According to the U.S. Census Bureau, 88.3% of Hidalgo County is made up of the Hispanic or Latino race. The large number of Hispanics is attributed to the geography of the area, where Hidalgo County is in close proximity to Mexico and its numerous border entry points into the United States.

According to the information analyzed by the Hidalgo County MPO, all TIP projects lie within close proximity to the minority populations in Hidalgo County. Staff believes that the data shows no disproportionately high and adverse effect is present, being that the majority of minorities (85%-100%) occupy the bulk of Hidalgo County. See Map in Appendix A.

This demonstrates that all minorities living in Hidalgo County are taken into account when considering commuting time, transportation affordability, access to jobs and services in the vicinity, as well as a commitment to providing mobility for all.

4.8C TIP Project Location vs. Income Level

Analysis of the FY 2008-2011 TIP projects in regards to where they are located in TAZs and distributed amongst different income levels in Hidalgo County was analyzed to determine what, if any income level group was being adversely affected or had an disproportionately high burden placed upon them by a project. For evaluation of centerline miles in the FY 2008-2011 TIP, staff used Census Bureau Data indicating poverty thresholds for 2004 and identified previously classified 2004 median income at the TAZ level.

Low income is defined by the poverty threshold in 2004 Census data and is based upon median income and median household size. Poverty thresholds by size of family unit and their respective average threshold are provided in the table below. Middle income is defined by median income less than $80,000 and greater than poverty thresholds. High income is defined by median income greater than $80,000.

A TAZ is defined by the Census Bureau as a special area delineated by state and/or local transportation officials for tabulating traffic-related data, especially journey-to-work and place-of-work statistics. The study map was created by geo-coding the Hidalgo County FY 2008-2011 TIP project locations along with income levels in TAZs. Upon analysis of centerline miles in TIP projects, staff determined that 76% of TIP project centerline miles intersect middle income TAZs, 18% of TIP project centerline miles intersect low income TAZs, and 1% of TIP project centerline miles intersect high income TAZs. Furthermore, 5% of TIP project centerline miles intersect TAZs with no income.

The results of the analysis determine that a majority of projects lie within close proximity to middle income TAZs. Staff believes that this represents the population distribution in that the 76% of TIP projects that lie within middle income TAZs is also the most densely populated portions of Hidalgo County. Staff believes it is logical to determine that since the greater amount of projects lie within the more densely populated areas of Hidalgo County, that the demand upon the network within these areas would be more greatly impacted by average daily traffic and thus require a greater amount of attention for maintenance and added capacity projects.

4.8D Transit vs. Median Household Income

The HCMPO felt it necessary to compare the proximity of transit with Median Household Income within the county. It is important to observe spatial distributions of people by income so that adequate planning for transportation services can be achieved. In this study, mileage of transit routes is divided and tallied according to income brackets to determine how well local transit serves populations of different income levels. See Maps in Appendix A.

Data

Median Household Income is a significant indicator in determining a family's economic state. Census Bureau data from 2004 at the TAZ level is used to create brackets of income as a means of dividing the study area into three distinct sets of income. The brackets are defined the following:

- Lower Income – Median Household Income less than 2004 Census Thresholds
- Middle Income – Median Household Income greater than 2004 Census Thresholds, but less than $80,000
- Upper Income – Median Household Income equal to or greater than $80,000

The Lower Income bracket is additionally based on poverty thresholds (Table 1); the thresholds are organized by median income and median household size. A fourth bracket consisting of traffic analysis zones with no income is also added to the analysis.

Hidalgo County has a significantly lower income level compared to other areas in Texas and the nation. Average household sizes are larger, while levels of education are lower. The median age of 27 is also lower than the national median average of 37, indicating a younger population. However, only 10.3% (97 zones) fall within the Lower Income category.

Table 4.8b: Median Household Income less than 2004 Census Thresholds

Size of family unit	Weighted average thresholds
One person (unrelated individual)	9,645
Under 65 years	9,827
65 years and older	9,060
Two persons	12,334
Households under 65 years	12,714
Households 65 years and older	11,430
Three persons	15,067
Four persons	19,307
Five persons	22,831
Six persons	25,788
Seven Persons	29,236
Eight persons	32,641
Nine persons or more	39,048
Source: U.S. Census Bureau	

Methodology

Several steps were taken to determine how transit routes in Hidalgo County related to the spatial distribution of median household income. McAllen Express Transit (MET) and Rio Metro bus routes were digitized, and clipped according to Income bracket using ArcMap. Mileage for route segments contained within or bordering traffic analysis zones for a specified income bracket was measured and tallied. Totals were then defined as percentages of total transit miles within the study area.

Results

The study aimed at determining proximity of transit routes to zones divided by Median Household Income. Analysis of transit miles per Income bracket revealed the following distribution:

- 76.7% of transit miles were contained within or bordered traffic analysis zones with median household incomes within the Middle Income bracket
- 13.31% of transit miles were contained within or bordered traffic analysis zones below 2004 poverty thresholds (the Lower Income bracket)
- 0.88% of transit miles were contained within or bordered traffic analysis zones with median household incomes within the Higher Income bracket
- 9.07% of transit miles were contained within or bordered traffic analysis zones that reported no income

The data indicates that a significantly large majority of transit miles are within proximity to the Middle Income bracket. However, this is not surprising, considering approximately 81% (742 zones) fall within this category. Of the 97 zones listed as Lower Income, roughly a third border Rio Metro transit, while 11 zones border MET bus routes. There are 26 zones listed at lower income that reside in the southern part of the county and do not border transit routes. Higher Income zones that border or contain transit routes are the lowest percentage bracket. Only 2 of the 6 Higher Income zones do not border transit routes.

Conclusion

Ultimately, this analysis reveals a balanced distribution of transit miles in proportion to median household income. The percentages of zones of median income are very comparable to the breakdown of miles of transit route per zone. The Middle Income bracket represents the most zones that border or contain transit routes (76.7%); it also represents the most zones in the study area (81%). The Lower Income bracket represents

the second highest percentage of zones in the study area (10.59%) as well as percentage of transit mileage (13.31%). Lower Income zones also have significantly higher mileage of transit routes than Upper Income zones. Zones with no reported income represent 7.75% of the study area, and contain or border 9.07% of transit miles.

4.8E Transit project impacts upon Colonias

The HCMPO felt it necessary to evaluate the proximity of transit stops and routes to the colonia populations located in the region. Colonia populations represent an extremely poor part of the population in Hidalgo County, and it is important to make sure transportation is available to this unique segment of citizens. In this study, buffers are created around transit stops and routes to determine distance between colonias and transit.

Data

As defined by the Office of the Secretary of State, a *colonia* in Texas refers to an unincorporated settlement along the Texas-Mexico border that may lack basic water and sewer systems, electricity, paved roads, and safe and sanitary housing. Most colonias are outside city limits or in isolated areas of the country.

Information regarding data of locations and boundaries of colonias within Hidalgo County was found at the Office of the Attorney General "Border Colonia Geography" and used in the mapping process. Staff identified all colonias within the planning area of the HCMPO and generated layers for visual display of the locations of the colonias. According to the data provided, there are a total of 1401 colonias, consisting of 25,753 total colonia acres within the Hidalgo County and the HCMPO planning area.

Data for transit stops and routes was obtained from the LRGVDC and from the City of McAllen. LRGVDC runs 4 intercity routes, a rural route, and a Career Link bus route, while MET has 7 routes. McAllen Express Transit routes have 187 identified bus stops, while Rio Metro Transit has 20 stops. Bus stops were subdivided into two categories; *stops*, represented by a signpost (red circles on the map), and *shelters*, stops provided with benches and overhangs (dark orange pentagons on the map).

Methodology

To quantify the proximity of transit to colonias, buffer rings were created at two different scales: city and region. For the City of McAllen, quarter-mile, half-mile, and three quarter-mile buffers were created around each bus stop. These distances were deemed appropriate possibilities for the walking distance of populations of extreme poverty such as colonias.

The Rio Metro Transit is not limited to the specified area of a city boundary, and therefore extends over much of the southern half of Hidalgo County, providing a more regional analysis. It consists of only 20 identified stops, and relies on random stops in an effort to provide a flexible schedule for colonia populations. To accommodate this fact, buffers were used for the routes instead of the stops. Quarter-mile, half-mile, and three quarter-mile buffers were created in similar fashion to the buffers used for the MET bus stops.

Results

In each scenario, colonias within each buffer ring were identified, and number of colonias along with acerage was tallied. For the City of McAllen, colonias within the area had the following spatial distribution in proximity to transit stops:

- 23.33% (7 colonias), consisting of 74 acres, are within a quarter-mile of a MET bus stop
- 40% (12 colonias), consisting of 205 acres, are within a half-mile of a MET bus stop
- 63.33% (19 colonias), consisting of 298 acres, are within three quarters of a mile of a MET bus stop
- 36.67% (11 colonias), consisting of 365 acres, are not in proximity to MET bus stops

However, McAllen only represents 2.07% of all colonia areas in Hidalgo County (663 acres). Results for the Rio Metro Transit analysis had the following spatial distribution in proximity to transit stops:

- 13.1% (184 colonias), consisting of 5830 acres, are within a quarter-mile of a Rio Metro bus route;
- 19.8% (278 colonias), consisting of 7193 acres, are within a half-mile of a Rio Metro bus route;
- 23.6% (331 colonias), consisting of 8403 acres, are within three quarters of a mile of a Rio Metro bus route;

- 76.4% (1070 colonias), consisting of 17350 acres, are not in proximity to Rio Metro/Transit routes.

Rio Metro Transit serves almost a ¼ of all colonias within three quarters of a mile to bus routes in Hidalgo County. Approximately 1/5 of all colonias are within a half-mile of transit routes. When comparing the two scales (city and regional), Rio Metro/Transit has 17 times as many colonias within proximity to a route, and 28 times as many acres as MET.

Conclusion

The MET is a more dense set of routes, and within the area of the City of McAllen, provides service to a significant majority of colonias. Almost a fourth of all colonias in the City of McAllen are within a quarter-mile of a MET bus stop. It can safely be said that MET is successful at providing transportation for colonia areas, as more colonias are within walking distance than not. The Rio Metro Transit routes encompass a much larger area, and this is reflected in the results. Approximately three quarters of all Hidalgo County colonias are not within proximity to Rio Metro Transit routes, meaning they are further than ¾ quarters of a mile from a transit route. Rio Metro Transit faces a greater task than MET in approaching the problem of transportation access to underprivileged demographics, especially when providing for much of the southern portion of Hidalgo County. However, the LRGVDC provides an on-call transit service, the Rio Transit, which is available per 24-hour notice, and open to the general public. The "Rio Transit" does not run a fixed route, and is able to serve populations that may not live in proximity to bus stops or routes. This may help address the issue of providing transportation service to colonias across Hidalgo County.

The LRGVDC is the lead agency of the Regional Public Transportation Coordination Plan. The plan includes outreach to non-profit, private and public providers as well as public in the three county area (Cameron County, Hidalgo County, and Willacy County). This plan makes public transportation available to move throughout the region safe, reliable, efficient, and affordable. The plan determines strategies to fill the gaps, making a seamless network of public and private facilities and services that are easy to comprehend, responsive to individual travel needs and easy to access. The Transit Advisory Panel (TAP) is a regional coordination plan committee that was established to improve the delivery of transportation services, generate efficiencies in operation, which can lead to increased levels of service, enhance customer service/satisfaction, and encourage cooperation and coordination among three (3) counties.

4.8F TIP Projects in Environmentally Sensitive Areas

The National Environmental Policy Act of 1969 (NEPA) aims to encourage harmony between people and the environment, promote efforts to prevent or eliminate damage to the environment and biosphere, and enrich the understanding of ecological systems and natural resources important to the country. NEPA requires that every federal agency submit an environmental impact statement (EIS) with every legislative recommendation or program proposing major federal projects that will most likely affect the quality of the surrounding environment. An EIS may be required for such projects as rerouting an interstate highway, building a new dam, or expanding a ski resort on federally owned land.

In accordance with the desires, aims, and requirements of NEPA, Hidalgo County MPO compared the projects of the current TIP with designated environmentally sensitive areas within the county. Most of the tracts and wildlife refuges are located at the southern border of Hidalgo County, along the Rio Grande River. Results indicate that 42.5% of the total number of National Wildlife Refuges and Tracts for the entire county are within a mile of TIP projects, such as: 16 tracts (40%) are within ¾ of a mile, 13 tracts (32.5%) are within half a mile, and only 8 tracts (20%) come within a quarter of a mile of a TIP project. Total acres for tracts that are potentially impacted equals 8,751 acres (45.6% of total acres in Hidalgo County). However, this number does not exclude acreage within each tract that is beyond the mile buffer; it attributes acreage for the entire tract. Overall, the majority of tracts and acres residing in environmentally sensitive zones are not affected by the projects of the current TIP.

4.9 Safety Element

On August 10th 2005 the President signed into law the SAFETEA-LU. With guaranteed funding for highways, highway safety, and public transportation totaling $244.1 billion dollars. SAFETEA-LU represents the largest surface transportation investment in our nation's history. SAFETEA-LU addresses many challenges facing our transportation system today such as improving safety, reducing traffic congestion, improving efficiency in the freight movement, increasing inter-modal connectivity, and protecting the environment as well as laying the groundwork for addressing future challenges. SAFETEA-LU promotes more efficient and effective Federal surface transportation programs by focusing on transportation issues of national significance, while giving the state and local transportation decision makers more flexibility in solving transportation problems in their communities.

SAFETEA-LU establishes a new core Highway Safety Improvement Program that is structured and funded to make significant progress in reducing highway fatalities. It creates a positive agenda for increased safety on our highways by almost doubling the funds for infrastructure safety and requiring strategic highway safety planning, focusing on results. Other programs target specific areas of concern, such as work zones, older drivers, and pedestrians, including children walking to school further reflect SAFETEA-LU's focus on safety.

SAFETEA-LU raises the stature of the highway safety program by establishing highway safety improvement as a core program, tied to strategic safety planning and performance. Despite reductions in the rate and actual number of fatalities in 2004, there were still more than 42,000 deaths on the Nation's highways. SAFETEA-LU devotes additional resources and supports innovative approaches to reducing highway fatalities and injuries.

4.9A Highway Facilities

Highway Safety Improvement Program (HSIP)

The HSIP requires States to develop and implement a strategic highway safety plan and submit annual reports to the Secretary that describe at least 5% of their most hazardous locations, progress in implementing highway safety improvement projects, and their effectiveness in reducing fatalities and injuries.

To obligate core safety funds a State must have in effect an HSIP under which the State: develops and implements a Strategic Highway Safety Plan (SHSP) that identifies and analyzes highway safety problems and opportunities; produces a program of projects or strategies to reduce identified safety problems; evaluates the plan regularly; and submits an annual report to the Secretary.

Strategic Highway Safety Plan (SHSP)

SHSP's will be used in the Highway Safety Improvement Program to identify and analyze highway safety problems and opportunities, include projects or strategies to address them, and evaluate the accuracy of data and the priority of proposed improvements. The SHSP must be based on accurate and timely safety data, consultation with safety stakeholders, and performance-based goals that address infrastructure and behavioral safety problems on all public roads. States are also required to develop an evaluation process to assess results and use the information to set priorities for highway safety improvements. The performance-based elements in the SHSP process should help States determine the

effectiveness of highway safety improvement projects in reducing the number of highway fatalities and serious injuries on all public roads. The evaluation process should capture these results and feed them back into the planning process for consideration when revisiting priorities included in the SHSP. The State's evaluation process should evaluate the plan on an annual basis to ensure the accuracy of the data, priority of proposed improvements and effectiveness of the projects and plan.

As part of the SHSP, a State shall: have in place a crash data system with the ability to perform safety problem identification and countermeasure analysis; identify hazardous locations sections or elements that constitute a danger to motorists, bicyclists, and pedestrians; establish the relative severity of these locations; adopt strategic and performance-based goals; advance the capabilities of the State for traffic records data collection, analysis, and integration; determine priorities for the correction of hazardous road locations, sections, and elements as identified thru crash data analysis; and establish an evaluation process to assess results achieved by improvement projects.

An SHSP is a state-wide coordinated safety plan that provides a comprehensive framework, and specific goals and objectives, for reducing highway fatalities and serious injuries. This statewide document, developed by the State DOT in a cooperative process, includes input from the public and private safety stakeholders. The SHSP is a data-driven, four to five year comprehensive plan that integrates the four E's, engineering, education, enforcement, and emergency medical services (EMS). The SHSP establishes statewide goals, objectives, and key emphasis areas developed in consultation with Federal, State, local, and private sector safety stakeholders.

An SHSP shares similar goals with the transportation planning process: to increase State and local decision maker's awareness of safety needs to improve the effectiveness of planning and programming through the use of accurate and timely data, and to expand the participation of major State and local stakeholders. State and local DOT's and MPO's are required to consider safety as a factor in the transportation planning process. It ensures that the appropriate SHSP initiatives are incorporated into the planning and policy documents of State DOT's and MPO's; into the program of projects in the Transportation Improvement Programs/Statewide Transportation Improvements Programs (TIP's/STIP's); and are eligible for federal–aid transportation funding.

4.9B Incident Management

The IMP was initiated by the HCMPO staff in 2005 with the guidance from the Houston/Galveston MPO. The objective was to obtain accident reports (including accidents

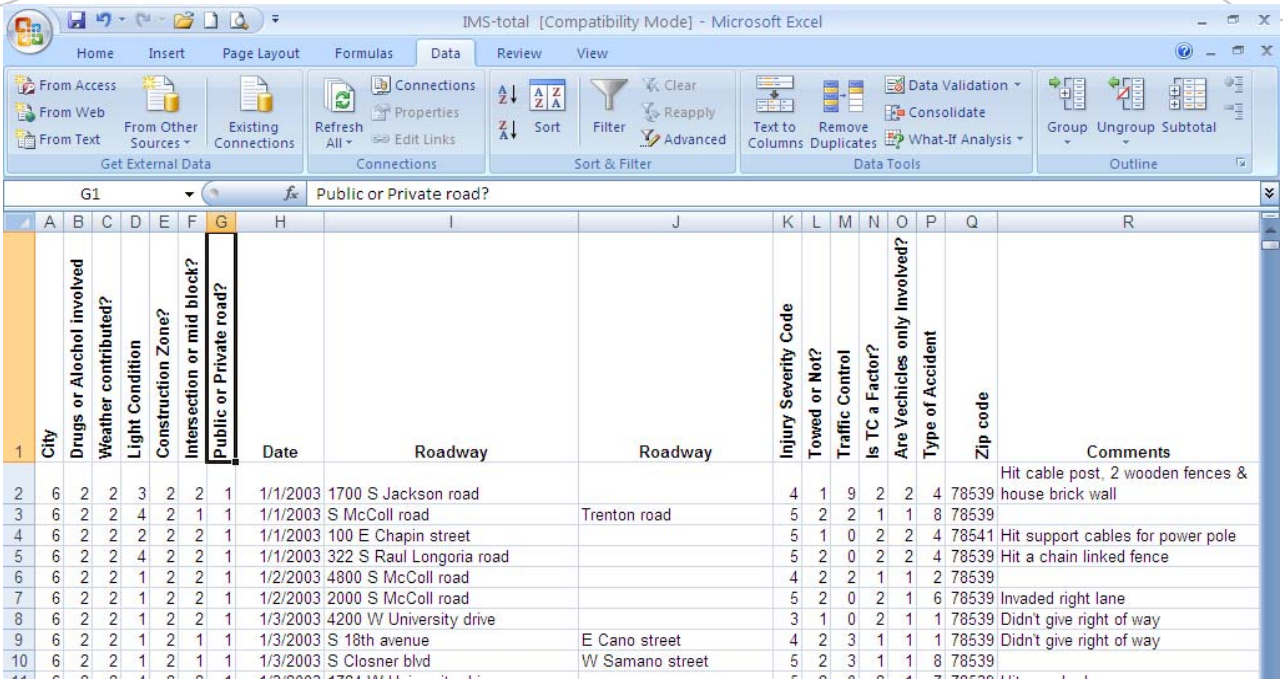
involving bicycles and pedestrians) from the police departments in Hidalgo County to process the following information:

- Location of the accident.- City and address
- Date of the accident
- Whether vehicles were towed or not
- Type and number of vehicles involved
- Type of injuries
- Weather condition
- Road condition
- External factors.- such as medical illness, driver distraction, driver intoxication
- Type of accident.- such as rear end, t-bone, failure to yield turning left, improper pass or turn, loss of control, or head-on collision

Design and environmental factors such as obstruction of traffic controls, lack of dedicated left turn lane, lack of a median, inadequate traffic control, unfavorable traffic control location, or lack of visible striping, can be causes for accidents, which can be corrected by incorporating the right entities into the process, such as local, state, and federal agencies, city planners, engineers, amongst others. Behavioral elements such as driver intoxication, medical conditions, or driver distraction, can only be addressed with an aggressive public involvement campaign aimed at targeting safety in the region. The HCMPO is planning on addressing behavioral factors in the future.

In 2005, the HCMPO determined that it was important to take a look at safety in our region, and so the Incident Management Program (IMP) was born. Later with the enactment in 2005 of the SAFETEA-LU transportation bill, it was required for safety to be incorporated into the transportation planning process.

The first step in the IMP process was to formally request accident reports from the police departments for the years of 2003, 2004, and 2005, which were processed between the years of 2005 and 2006. The total number of accident reports processed for these years were approximately 20,000. Since the objective was to map these accidents the data was cleaned, deleting reports that lacked a specific address; reports where the cause of the accident was driver impairment due to alcohol, drugs or a medical conditions; accidents where the driver backed into traffic, amongst others, which reduced the amount of accidents to approximately 14,000. A preview of the Excel spreadsheet is included below:



IMS-total [Compatibility Mode] - Microsoft Excel

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Sort | Filter | Clear | Reapply | Advanced | Sort & Filter

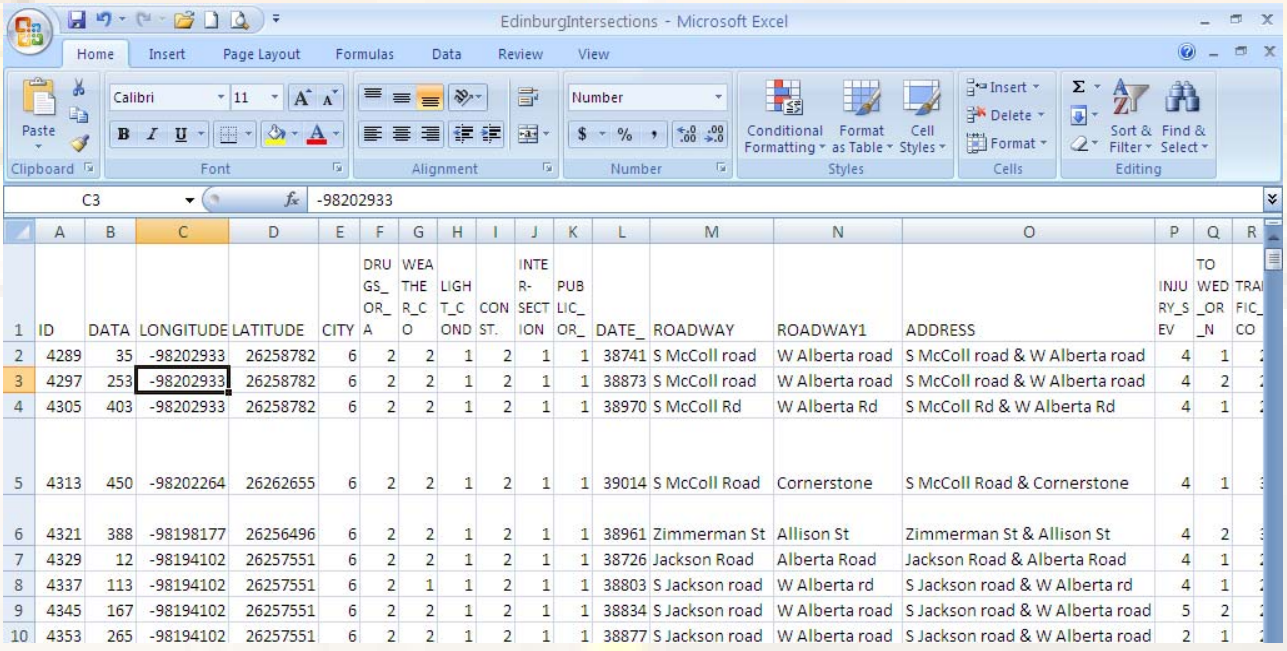
Text to Columns | Remove Duplicates | Data Validation | Consolidate | What-If Analysis | Data Tools

Group | Ungroup | Subtotal | Outline

G1 | Public or Private road?

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	City	Drugs or Alochol involved	Weather contributed?	Light Condition	Construction Zone?	Intersection or mid block?	Public or Private road?	Date	Roadway	Roadway	Injury Severity Code	Towed or Not?	Traffic Control	Is TC a Factor?	Are Vechicles only Involved?	Type of Accident	Zip code	Comments
2	6	2	2	3	2	2	1	1/1/2003	1700 S Jackson road		4	1	9	2	2	4	78539	Hit cable post, 2 wooden fences & house brick wall
3	6	2	2	4	2	1	1	1/1/2003	S McColl road	Trenton road	5	2	2	1	1	8	78539	
4	6	2	2	2	2	2	1	1/1/2003	100 E Chapin street		5	1	0	2	2	4	78541	Hit support cables for power pole
5	6	2	2	4	2	2	1	1/1/2003	322 S Raul Longoria road		5	2	0	2	2	4	78539	Hit a chain linked fence
6	6	2	2	1	2	2	1	1/2/2003	4800 S McColl road		4	2	2	1	1	2	78539	
7	6	2	2	1	2	2	1	1/2/2003	2000 S McColl road		5	2	0	2	1	6	78539	Invaded right lane
8	6	2	2	1	2	2	1	1/3/2003	4200 W University drive		3	1	0	2	1	1	78539	Didn't give right of way
9	6	2	2	1	2	1	1	1/3/2003	S 18th avenue	E Cano street	4	2	3	1	1	1	78539	Didn't give right of way
10	6	2	2	1	2	1	1	1/3/2003	S Closner blvd	W Samano street	5	2	3	1	1	8	78539	

The second step in the IMP was to geo-code these results using a Trans-CAD to transfer the information from an Excel spreadsheet into a map. A preview of the spreadsheet is included below.



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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	ID	DATA	LONGITUDE	LATITUDE	CITY	DRUGS_OR_A	WEATHER_CO	LIGHT_COND	CONST.	INTER-SECTION	PUBLIC_OR_	DATE_	ROADWAY	ROADWAY1	ADDRESS	INJURY_SEV	TOWED_OR_N	TRAFFIC_CO
2	4289	35	-98202933	26258782	6	2	2	1	2	1	1	38741	S McColl road	W Alberta road	S McColl road & W Alberta road	4	1	
3	4297	253	-98202933	26258782	6	2	2	1	2	1	1	38873	S McColl road	W Alberta road	S McColl road & W Alberta road	4	2	
4	4305	403	-98202933	26258782	6	2	2	1	2	1	1	38970	S McColl Rd	W Alberta Rd	S McColl Rd & W Alberta Rd	4	1	
5	4313	450	-98202264	26262655	6	2	2	1	2	1	1	39014	S McColl Road	Cornerstone	S McColl Road & Cornerstone	4	1	
6	4321	388	-98198177	26256496	6	2	2	1	2	1	1	38961	Zimmerman St	Allison St	Zimmerman St & Allison St	4	2	
7	4329	12	-98194102	26257551	6	2	2	1	2	1	1	38726	Jackson Road	Alberta Road	Jackson Road & Alberta Road	4	1	
8	4337	113	-98194102	26257551	6	2	1	1	2	1	1	38803	S Jackson road	W Alberta rd	S Jackson road & W Alberta rd	4	1	
9	4345	167	-98194102	26257551	6	2	2	1	2	1	1	38834	S Jackson road	W Alberta road	S Jackson road & W Alberta road	5	2	
10	4353	265	-98194102	26257551	6	2	2	1	2	1	1	38877	S Jackson road	W Alberta road	S Jackson road & W Alberta road	2	1	

The third step in the IMP was to download the data into the map using a tool called ESRI which has several features available to perform this task. After this comprehensive process was completed it was then possible to determine the location of the "hot spots". Once the map was created, emphasis was placed on determining which "hot spots" were the most severe, and a coloring system was created as follows:

- Red for 30+ accidents
- Dark Orange for 17 to 29 accidents
- Light Orange for 8 to 16 accidents
- Yellow for 4 to 7 accidents
- Green for 1 to 3 accidents

For simplification purposes the coloring system was then changed to the following:

- Orange for 15 accidents or more
- Yellow for 10 to 14 accidents
- Blue for 5 to 9 accidents

Since, the HCMPO has initiated the analysis of "hot spots" in 2005. Hidalgo County has seen the following accident activity for the years of 2003, 2004, 2005, and 2006.

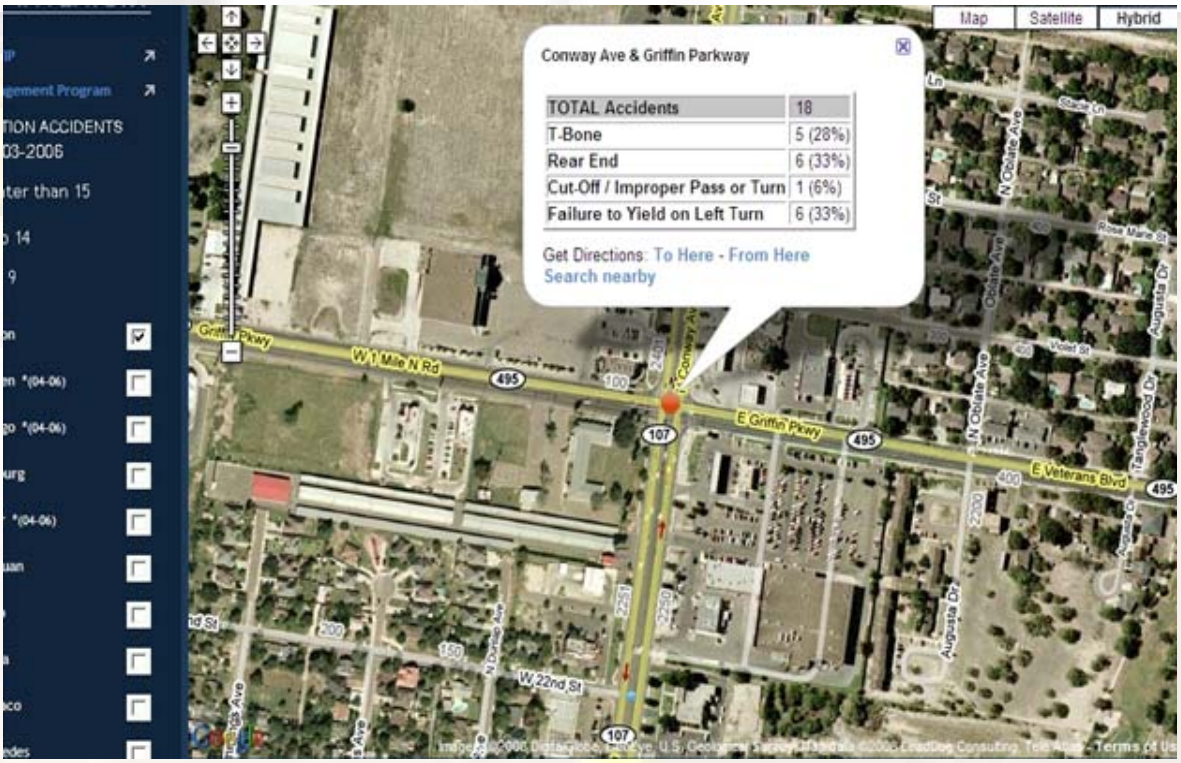
Table 4.9a: "Hot Spots" FY 2003-2006

	2003	2004	2005	2006	Totals
Possible Injury	1,292	1,685	1,853	1,145	5,975
Non-Incapacitating Injury	282	347	250	216	1,095
Incapacitating Injury	57	64	67	42	230
Death	16	15	18	6	55

This effort by the HCMPO was awarded an Innovation Award from the National Association of Developing Organizations (NADO) in 2007. Due to the perception of added value and information of the IMP by the police departments and other stakeholders, the HCMPO decided to make the IMP a continuous program, consequently the year of 2006 was processed in 2007, increasing the number of accident reports in the database to approximately 18,000.

The HCMPO understands that the consideration of safety in the planning process within the HCMPO is a great accomplishment, but there is nothing that compares to the benefit the community gains once public involvement is incorporated, and this was the fourth step in the IMP process. A virtual map was created for each city in Hidalgo County and included into the HCMPO's website to be accessible to the public and to provide detailed information about the "hot spots" within each city in Hidalgo County. This virtual map allowed the user to place the mouse in a particular "hot spot" and automatically a table would open with the statistical information for that "hot spot" including total number of accidents, as well as number and percentage per type of accident.

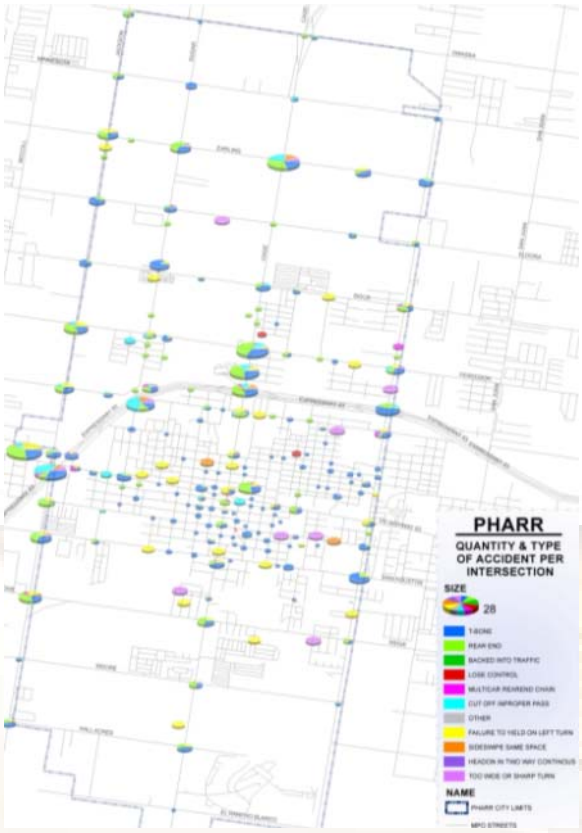
The HCMPO was awarded an Innovation Award by NADO in 2008 for the public involvement effort incorporated into the IMP. A preview of a website map is shown below:



One practical example of this public involvement feature was the use of the IMP by the City of Pharr. The City of Pharr was researching the benefit of installing red light cameras, and the program proved to be very beneficial for the City of Pharr. By utilizing the IMP, Pharr was able to determine the best locations for the red light cameras focusing on the "hot spots" that were the most hazardous. A preview of the information provided to the City of Pharr is included below:

The HCMPO believes that the IMP, even though it has become a very recognized and useful tool, is still a work in process. The HCMPO still plans to incorporate the following elements to the IMP in the near future:

- Incorporate accidents that are caused by human elements such as intoxication by alcohol, drugs, medical conditions, or driver distraction
- Incorporate injury severity to the virtual maps displayed in the HCMPO's website
- Develop a public involvement campaign to target accidents caused by human elements
- Work closer with the cities to target past, present and future "hot spots"



The HCMPO is currently working in addressing the existing "hot spots" with the cities, the county and TxDOT. Memorandums are being sent to the cities in Hidalgo County as well as Hidalgo County incorporating information about the "hot spots" in their jurisdiction, as well as a map illustrating the "hot spots". This effort will initiate a collaboration process between the cities, the county and TxDOT to further analyze and correct the existing "hot spots" in Hidalgo County.

As part of including safety into the transportation planning process, the HCMPO will incorporate the results from the IMP into the MTP, and the TIP, by adding a new element into the project selection criteria utilized to rank projects in the MTP. The 2010-2035 MTP update is due in December of 2009.

The HCMPO believes that whether or not safety is a factor in a transportation bill, the analysis and management of "hot spots" benefits the community as a whole, by saving lives and property thru the correction of road visibility and design, and the awareness of contributing human factors in accidents, which cost Hidalgo County a great deal of pain and suffering, in situations where these accidents shouldn't even occur in the first place. The HCMPO desires for Hidalgo County to be a safe place to live and drive.

4.9C Other Safety Efforts:

The HCMPO considers both motorized and non-motorized vehicles in the planning process. Because the Rio Grande Valley offers a year round tropical climate, many local residents enjoy cycling as an outdoor activity and utilize the roadways for cycling purposes, so there has to be a designation of cycling routes in order to provide safety and convenience to cyclists. The MPO is proud to announce that the Bicycle Plan was awarded honors for the innovation in the regional development of safe bicycle alternatives to the transportation infrastructure.

In FY2006, the HCMPO considered it beneficial to develop a non radioactive hazmat routes in coordination with local authorities. The HCMPO hosted a series of meetings that included local municipalities as well as each cities fire department and hazmat teams, TxDOT, and the LRGVDC. Interest in developing and adopting such a route was very high. Upon completion of several meetings the group was able to identify the need of hiring an outside contractor who was experienced in developing such routes to ease the approval process with TxDOT and local municipalities. Upon identifying the need to contract an outside organization to complete the study, the HCMPO and LRGVDC in partnership coordinated efforts to ask local municipalities to contribute to the funding of such a study. Hidalgo County and many of its cities contributed nearly $100,000 to be applied to a hazmat study which would be contracted through the LRGVDC. Attempts to include Cameron County and its cities in the study were also attempted but interest was minimal at best. The Hidalgo County HazMat study was performed by Chemical Response & Remediation Contractors, Inc. (CRRC) in 2006. CRRC held a series of public meetings identifying the least impactful routes to the public as well as presented findings to the HCMPO Policy Committee and LRGVDC Board. The study was completed in 2007 and submitted to TxDOT for their approval. The LRGVDC and HCMPO are still awaiting additional feedback from TxDOT on the approval process.

The HCMPO will not cease in its efforts to consider safety in the transportation planning process and with coordinated efforts from local, state, federal and private agencies as well

as the public, safety will continue to prominent element of the transportation planning process and the community.

4.10 Security Element

SAFETEA-LU listed eight factors that must be considered as part of the planning process for all metropolitan areas. The MPO staff and the Technical Advisory Committee consider the factors as part of the planning process before making recommendations to the Transportation Policy Committee. Safety and Security is one the factors the HCMPO considers as SAFETEA-LU request that metropolitan areas "**Increase the ability of the transportation system to support homeland security and to safeguard the personal security of all motorized and non-motorized users."** The HCMPO works closely with the Lower Rio Grande Valley Development Council who is the administrative agent for several Homeland Security programs.

4.10A Metropolitan Medical Response System (MMRS)

The Metropolitan Medical Response System (MMRS) is a U.S. Department of Homeland Security program, which formed in 2004, directly supporting local capabilities to manage an all hazards mass casualty incident until significant external resources arrive by systematically enhancing and integrating first responders, medical providers, public health, emergency management, business, and volunteers. The Lower Rio Grande Valley Development Council Metropolitan Medical Response System (LRGVDC-MMRS) plan does not emphasize or construct the specific operating procedures for each agency, but instead emphasizes interagency cooperation under the federally accepted National Incident Management System. It also emphasizes review and interaction of individual local plans whether the agency is local, state, federal or privately held.

The primary goal of the LRGVDC MMRS is to support an integrated regional response system that can address all-hazards, natural or man-made incident that might occur within this strategically important geographical area of South Texas. This task is complex, considering another task of the LRGVDC-MMRS is to develop a sustainable, integrated, regional and national plan encompassing the four counties of Hidalgo, Cameron, Starr and Willacy taking into consideration the collaboration with border communities from the Mexican State of Tamaulipas.

4.10B Natural and Manmade Disaster Preparedness

Hurricanes are among the most extreme weather events that occur on the Texas Coast. Hurricane season lasts from June 1 to November 30; storms are most frequent on the Texas coast in August and September. The dangers of hurricanes are real: these storms are capable of killing thousands and destroying coastal towns. The HCMPO works closely with the LRGVDC and TxDOT to identify hurricane evacuation routes, and has received a copy of Traffic Management Plan for Emergency Evacuations from the Texas Department of Public Safety. The objective of the Plan is to formally establish a coordinated plan for the direction and control of evacuating traffic during times of emergencies such as natural or manmade disasters. The Texas Department of Public Safety in conjunction with TxDOT and local law enforcement agencies, have identified major evacuation routes and potential choke points that could create traffic congestion within the Disaster Districts. As a result, the Plan will provide specific assignments for law enforcement agencies to control at designated locations. In coordination and cooperation with the Plan, the HCMPO is assisting in distributing the Traffic Management Plan to all the cities within the Hidalgo County and incorporating its objectives in our MTP.

4.10C Border Security

The HCMPO has four international crossings, and an additional two bridges identified in the near future, located within the Urbanized Area and works collectively with the City of Reynosa in Mexico to prepare for security issues that may arise in the near future. The HCMPO is also planning to foster greater relationships with U.S. Customs and Border Protection (CBP) as a planning partner with bridge security in mind. CBP presently provides monthly updates to the HCMPO on all northbound vehicle counts at the international crossings. The HCMPO presently has working and planning relationships with bridge owners as well and presently receives southbound vehicle counts and descriptions. The HCMPO is planning on inviting a representative of each international bridge to be an ex-oficio of our Technical Advisory Committee and the Transportation Policy Committee.

4.11 Hidalgo County Regional Mobility Authority

The Hidalgo County Regional Mobility Authority (HCRMA) was created through laws passed by the Texas legislature and utilized by the Texas Transportation Commission and Hidalgo County Commissioners. The seven member board was established in 2005. As a consequence of growth and an increasing demand for transportation infrastructure, elected officials in Austin decided a local controlling authority was needed to better facilitate the funding and construction of transportation projects.

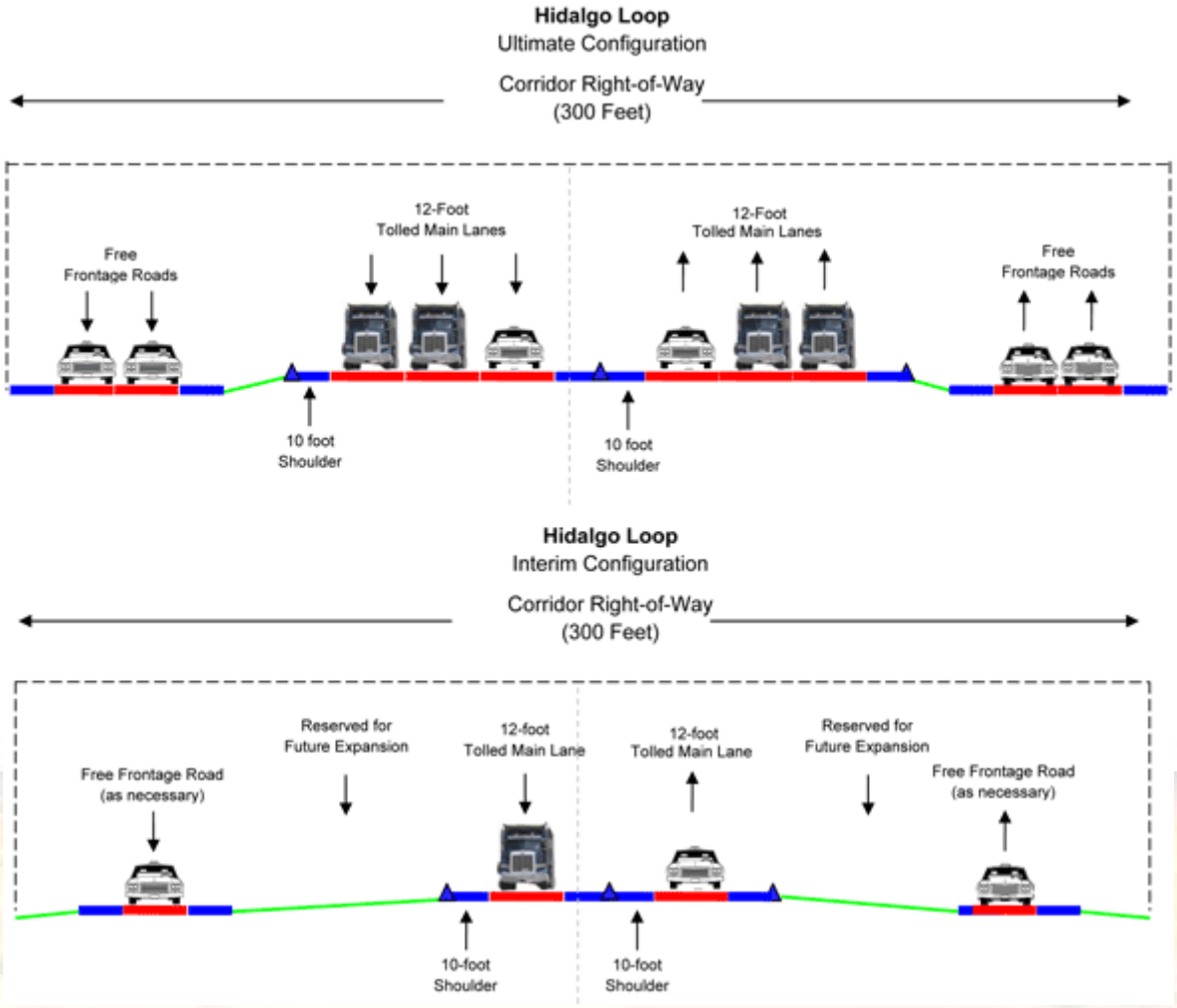
A local mobility authority is much closer to knowing the needs of the community it serves than is a state agency and can, therefore, make wiser decisions about what is essential for efficient transportation. The RMA chose the Hidalgo Loop as its first priority for construction and funding because of the impact increased NAFTA traffic is having on local transportation.

The Hidalgo Loop is a bypass designed to expedite the flow of traffic, particularly truck and freight, into and out of the county. The Loop is expected to reduce congestion on local thoroughfares, lower exhaust emissions, and improve safety and expand economic development in the urban core of the county.

The need for the Loop has been prompted by the dramatic increase in both population and business growth. Today, Hidalgo County is the 7th fastest growing county in the State of Texas. According to the US Census, the population has increased 23% between 2000 and 2006. By 2040, more than 1,000,000 new residents will come to live and work in Hidalgo County. If we are not ready, that growth will gridlock our current roadway network. The Loop will provide much-needed added capacity to meet the future transportation needs of the County.

The North American Free Trade Agreement (NAFTA) has caused a significant jump in the number of tractor trailers and heavy trucks hauling freight throughout the County. This increase in freight traffic has led to congestion on our main thoroughfares and residential streets. When the Loop is complete, trucks will be able to cross the border at the international bridges or leave the Free Trade Zone and go east or west, turn northbound and skirt Hidalgo County. This bypass will attract more NAFTA-related industry to our County while taking trucks out of our neighborhoods, improving safety for our children.

Planned as a tolled facility, the Hidalgo Loop will connect the international bridges to US 83 and then turn north to connect to US 281. Ultimately, the Loop will consist of 2 to 3 tolled main lanes with 2 lane frontage roads in each direction. In its initial phase, one main lane will be constructed with frontage roads as necessary for connectivity.



Financing the Project

Because the Texas Department of Transportation has informed communities around the state that there will be dramatically less money for road projects, local sources of revenue are required to fund construction.

The Hidalgo Loop, which is using a number of innovative financing mechanisms, will include tolls for tractor-trailers and heavy trucks moving freight through the county. While freight traffic is expected to be the main source of revenue, tolls will also be charged for passenger vehicles.

Registration fees for motor vehicles operating in Hidalgo County were increased by $10 on January 1, 2008 as part of the overall plan to fund the county's truck bypass known as the Hidalgo Loop.

The increase will generate about $4 million in revenues annually and the total will rise as the vehicle census climbs with population growth. The money, collected by the Hidalgo County Commissioners, is turned over to the HCRMA, which uses it to pay off bonds that were authorized to fund the early part of the loop's construction.

Historically, transportation projects in the state of Texas have been funded through a combination of local and state funds. Local governments have contributed their money to cover a percentage of the right-of-way or design costs, while the State provided the remaining funds. Because of reluctance through the last decade to raise the gas tax, the historical source of transportation dollars in Texas, state funding for transportation projects has not kept pace with demand.

Today, the Texas Department of Transportation estimates that there is only enough funding to cover the maintenance of the state's existing roadway network.

In an attempt to provide a remedy to this funding crisis, the Texas Legislature authorized a new way to fund and accelerate the development of critically needed roadway projects. The State now has the ability to partner with local governments to fund locally prioritized projects through the use of Pass-Through Financing. This finance mechanism allows a local government to fund and construct a project today, such as the Hidalgo Loop, and be repaid by the State over time as motorists travel the new or improved roadway. While the local government provides the initial financing, ultimately a portion of the project cost is "passed through" to the State. Once the project is constructed and operational, the State repays the local government on the basis of a per vehicle fee determined by the actual traffic using the road.

The Hidalgo County Regional Mobility Authority intends to seek a Pass-Through commitment from the State to pay for a portion of the Hidalgo Loop. However, it must act

quickly. Competition for Pass-Through funding is fierce and state funding for all transportation needs is scarce.

A Transportation Reinvestment Zone (TRZ) is an innovative method of financing transportation projects by leveraging growth prompted by the creation of the new infrastructure. Authorized by the State Legislature in 2007, this new concept has been enthusiastically backed by state and county political leaders who are seeking realistic and affordable solutions to local transportation challenges.

In short, future economic development along a road like the Hidalgo Loop is used to finance present day construction.

Although it sounds fairly complex, the way a TRZ works is quite simple. Hidalgo County, in conjunction with the Hidalgo County Regional Mobility Authority (HCRMA) will establish a Transportation Zone around the Hidalgo Loop. Growth – both commercial and residential - along the Loop will be projected and the increased ad valorem tax generated by the new growth will be estimated. A percentage of this increment, pre-determined by Hidalgo County and HCRMA, will be dedicated to the Loop project. The tax revenue estimates will be used by HCRMA to sell bonds. The money from the bond sale is used to help finance the construction of the Loop. The TRZ will remain in place until the bonds on the Loop are paid off.

The TRZ does not translate into an increase in property taxes. Development of a new transportation corridor always brings growth. Land previously under-developed or classified as "ag-exempt" on the tax rolls becomes new subdivisions, industrial complexes, malls and business complexes. This is growth that would not have occurred without the development of the Loop. In other words, the Loop will generate tax revenue and a percentage of that revenue will be dedicated to the project.

Over time, it is estimated that the revenue collected within the TRZ will be more than necessary to pay the debt on the Loop. At that point, the TRZ can be utilized to fund additional transportation needs within the County. TRZ funding offers Hidalgo County the opportunity to assert local control over transportation planning and development without having to rely on the State or other outside agencies for money and approval.

Hidalgo County is expected to be one of the first jurisdictions in the state of Texas to establish a TRZ.

5.0 Public Involvement

HCMPO's Public Involvement strategies and procedures are designed to educate the public on transportation planning and development topics, to seek out and provide opportunity for interested parties to comment on transportation ideas and proposals, and to actively contribute to the policy and decision making process. Public participation is the active and meaningful involvement of the public in the development of transportation plans and improvement programs. SAFETEA-LU and subsequent regulations require that state departments of transportation and MPOs to proactively seek the involvement of all interested parties, including those traditionally underserved by the current transportation system.

The HCMPO seeks various methods of outreach using different mediums such as television broadcasts, seasonal newsletters, monthly meetings, an interactive website, and various other informational materials such as brochures and guides.

During the 2010-2035 MTP Update, the HCMPO reached out to citizens cross Hidalgo County and conducted many successful public meetings that engaged staff with citizens in various cities. HCMPO were successful in relaying information gathered in house as well as listening to concerns of residents around the area.

5.1 Outreach Efforts

The Hidalgo County MPO tries hard to engage the public into the transportation planning process. The HCMPO strongly feels that the public is an integral part of our success and we make every effort to hear their needs as well as share our vision and work.

5.1A MPO Newsletter

As part of our public outreach, the MPO recreated a quarterly newsletter in the summer of 2004 in both English and Spanish to keep the general public informed of MPO activities. Since the inception of the letter, innovative methods of public outreach efforts have helped to grow the subscriber list substantially.


MOVILIDAD
Del Valle

Newsletters are posted on the HCMPO website, are mailed to elected officials, public libraries, school districts, chamber of commerce's, interested citizens, churches, retirement homes, civic and

community centers, real estate developers and realtors. The HCMPO also keeps fellow MPOs informed of the events in Hidalgo County by emailing our newsletter each quarter to all MPOs within the state.

The newsletter has covered a wide range of topics including: explaining what the MPO is and how citizens are affected by it, controversial transportation projects, the TMMP, Unified Planning Work Program (UPWP), the MTP, and special events in member cities and interesting topics regarding Hidalgo County. The newsletter also spotlights a member city of Hidalgo County in each issue.

5.1B Policy and Advisory Committee Meetings

Ongoing public involvement is encouraged at the monthly Policy and TAC meetings. Although meeting times and locations do not change, the MPO newsletter announces meeting times and dates three (3) months in advance in an effort to increase citizen participation in the transportation planning process. The HCMPO's TAC and Policy meetings are open to the public and are held on transit accessible routes.

The TAC meetings are now held on the first Tuesday of every month at 1:30 p.m. in house at the HCMPO Conference room. The Policy Committee meetings are held in the Conference Room as well and the meeting times are the third Thursday of every month at 5:30 p.m. The TAC and Policy Committees conduct their meetings at the HCMPO facility to comply with the requirement of holding public meetings on a Transit accessible route. Attendance includes local and regional public officials, consultants, transportation providers and interested citizens. The meetings serve as a public forum where the general public is given the opportunity to address the Policy Committee on agenda items or transportation concerns. During Policy meetings there is a designated time period set aside for citizen input.

5.1C Citizens Advisory Committee (CAC)

In 2007 the HCMPO formulated the Citizens Advisory Committee (CAC) as a grass roots approach to transportation planning and the many facets that are affected by it. The CAC was formalized in 2008 with regular meetings on a monthly basis on the first Thursday of each month. The CAC is given the opportunity to review and comment on all materials that will be introduced to the TAC and TPC for action. Although the group has no voting powers that would influence the action items either at TAC or TPC, staff relays input from the group to both TAC and TPC to make them aware of the feedback staff is receiving at the citizen level.

5.1D MPO Website

In May 2000, the HCMPO Staff initiated the HCMPO's first Web page as part of its public involvement efforts. Information about the HCMPO and some of its major documents was provided to the general public through the web page at www.lrgvdc.org. Currently, the HCMPO has redesigned the website, which is also accessible through www.hcmpo.org, to allow greater access by the public to a plethora of planning documents by the HCMPO. The site not only gives general access to basic planning documents such as the UPWP, APER, MTP, TIP and Annual Project Listing, it also provides all meeting agendas and complete packets for upcoming TPC and TAC meetings.

In addition to the basic planning documents available on the HCMPO website, the website provides for access to additional studies such as the Congestion Management Study, now known as the Congestion Management Process, Access Studies, Rails Studies, Multi Modal Studies and video clips of the HCMPO commercials which run on Time Warner. The HCMPO also provides on the Geographical Information Systems (GIS) a multitude of interactive maps that provide information such as bridge crossing counts from 2000 to present, Land Use maps, an interactive map on the FY 2008-2011 TIP, as well as maps illustrating transit routes, Thoroughfare Plan and Level of Service to mention a few.

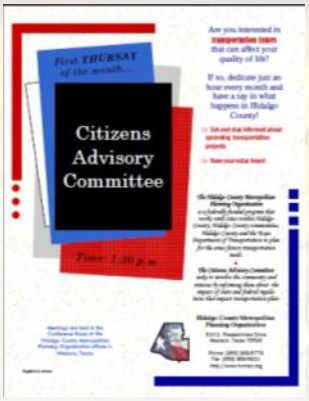
In addition to all the technical data available on the HCMPO website, the HCMPO provides a unique opportunity for both its English and Spanish speaking populations by offering minutes for the TPC and TAC, not only in pdf form in English and Spanish but MP3 audio of the minutes in both English and Spanish.

The HCMPO believes this provides an opportunity for individuals that may not be literate in either language to gain knowledge on what has transpired in previous meetings.

5.2 Facts about Hidalgo County MPO Public Involvement Strategies

- The MPO publishes a quarterly newsletter in both English and Spanish that informs the public about the latest information on the Region's transportation issues and topics. The newsletters are distributed countywide to the public online, via mail and email, as well as posted in several locations within Hidalgo County, including the county courthouse, Libraries, City Halls, Transit Routes, and the LRGVDC.

- HCMPO currently distributes approximately 2,900 newsletters in both languages to the HCMPO mailing list, Transit providers, all public libraries and city halls that are members of the MPO.
- The HCMPO places Advertisements and Legal Notices for HCMPO Public Meetings in both English and Spanish newspapers, such as: The Monitor, Coastal Current Weekly, and El Manana.
- HCMPO sends out flyers announcing upcoming public meetings or public involvement periods and events to all entities as stated in the HCMPO's PIP, which includes regional libraries, city halls, and to all subscribers of the HCMPO newsletter.
- The HCMPO has published and distributed a Citizens Guide where transportation planning information is provided. For example, the guide explains the function of an MPO, the function of the TAC & TPC, how to become involved and the importance of becoming involved.



- The HCMPO has published and distributed brochures in both English and Spanish regarding HCMPO documents such as the TMMP, MTP, and an updated list of TPC and TAC members.
- The HCMPO has published and distributed book markers in both English and Spanish with a brief explanation of what is an MTP, TIP, MultiModal, CMP, Level of Service, Thoroughfare Plan and Transit.
- HCMPO Staff keeps in contact with citizens via email regarding newsletters, public meetings and other HCMPO events.
- HCMPO staff participates in some fairs by setting up a booth and distributes information, in both English and Spanish, about what the HCMPO does for the metropolitan area of Hidalgo County.

- The HCMPO advertises on Time Warner Cable a total of 168 commercial spots a month, in English and Spanish. Currently, the HCMPO runs daily commercial advertisements which appear on Galavision, one of our Spanish speaking channels, FX, the Hallmark channel and Headline News. The HCMPO rotates out two different commercial spots, one is a just a reminder to become involved makes the public aware of our meeting times and invites them to attend and become involved. The second commercial spot, called a "donut" is a commercial that has the same beginning and ending but allows staff to inject into the middle of it special public notices such as TIP, MTP or other amendments that require a public involvement period. HCMPO felt this method of exposure gave the greatest return on the investment since advertisement on Time Warner has the potential to reach 118,000 people within the Lower Rio Grande Valley. The HCMPO staff worked closely with Time Warner to assure the commercial spots conveyed the proper messages and reached the demographic breakdown that had the greatest potential to become involved and proactive in transportation planning.

- The HCMPO staff has also arranged interviews at the KURV radio station in order to provide information about the HCMPO and about any other transportation related issues.

5.3 New Strategies for Public Involvement

One of the objectives for the MPO is to ensure that the current Public Involvement process is up-to-date and reflective of the current needs and assessments of the Hidalgo County MPO. In an effort to increase public participation in the transportation planning process, potential new strategies for obtaining greater public input could include the following:

- Conduct periodic public opinion surveys to gauge public attitudes and opinions about transportation related issues.
- Conduct scheduled educational tours to local academic schools within our region and get our young children knowledgeably excited in transportation. Sub sequential tours of small classroom type attendance to HCMPO's meetings for career learning exposures. Utilize a "Teach the Teacher" approach.

- Catalog all comments received by area to identify potential clustering's of transportation issues by area.
- Improve the HCMPO website by including a link to a public involvement page. The public involvement page will have specific strategies for getting involved in local and regional transportation issues.
- Set up information booths at high traffic areas, such as local shopping malls, Information Fairs, and social calendar events to invite citizens to become more involved in the transportation planning process and as part of HCMPO's public outreach effort.
- Increase participation in public gatherings and social events hosted by cities across Hidalgo County in order to meet with locals and introduce the HCMPO and its efforts as well as encourage participation in transportation planning efforts

5.4 Public Involvement in the Transportation Plan Update

Public involvement and input is essential in the planning process. The intended outcome of the public involvement process is that better decisions will be made and that those decisions will best reflect the community's mobility and accessibility needs.

In compliance with federal regulations for publishing the 2010-2035 MTP, citizens are given an opportunity to review and comment on the content of the Plan. The Public Involvement process provides a structured, ongoing process for public and private participation. Public involvement efforts included conducting meetings and workshops in different cities within the region, holding MTP Open Houses at the MPO office, conducting televised and newspaper interviews, and distributing notices of all upcoming meetings in various locations. The goals of Hidalgo County's Public Outreach include the following actions:

Public Education:

- Develop educational materials that support a cooperative planning process and describe regional transportation plans and activities in a concise and straightforward manner.
- Disseminate this information to the general public.

Public Outreach:

- Use innovative approaches to help increase awareness and interest in transportation plans and the transportation planning process.
- Conduct presentations at specific locations within our region to educate our citizens in transportation news about roads, highways, and new approaches to preserve our environment.
- Conduct scheduled tours of local Senior Centers and present visuals on where their tax dollars are being spent as well as presentations on future projects.
- Coordinate scheduled tours for local seniors as a group to attend HCMPO's meeting providing an opportunity for them to see their elected officials at work.

During the development of the 2035 MTP, citizens were given opportunities to comment on the Plan in different ways, some ways including speaking at public meetings, and completing public opinion surveys.

Public Meetings were held throughout the county. Central cities around Hidalgo County – McAllen, Mission and Edinburg were the primary locations in which meetings were conducted along with several meetings at the HCMPO office.

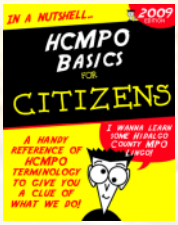
The Hidalgo County Metropolitan Planning Organization held ten public involvement meetings primarily during the months of October and December to present their Metropolitan Transportation Plan with current revisions and future planning scenarios up to year 2035. Almost 200 Hidalgo County residents attended these meetings. Pictured right is Rudy Gonzalez – Transportation Planer I addressing a senior citizens group from Mercedes, Texas. The senior group attends and lives at Amigos Del Valle Casa # 7 one of many Housing Management Properties for Amigos Del Valle, Inc. The Senior citizens were able to learn about current highway projects, new bridges, proposed bicycle lanes, new sidewalks for their communities, and environmentally sensitive areas like the main canal waterway that starts at Santa Maria, Texas, travels north through La Villa, Texas and deposits water into Delta Lake. They learned that these areas have become part of the Santa Anna Wildlife Refuge because three cat species have taken habitat up and down this waterway.

5.5 Public Outreach during the 2035 MTP: Public Meetings

Public involvement and input is essential in the planning process. The intended outcome of the public involvement process is that better decisions will be made and that those decisions will reflect the community's mobility and accessibility needs. The MPO staff has satisfied all applicable SAFETEA-LU regulations in the preparation of this plan and in ensuring adequate public notice of the planning input to the plan. Staff held various public meetings in the development of the 2035 MTP Update.

The HCMPO kicked off the first public meeting by setting up a scenario planning workshop. Invitees included the public and local officials, engineers, land developers, realtors, and Home Owners Neighborhood Association Groups. The Public Forum was held on August 20, 2009 at the McAllen Convention Center.

A brief presentation was given to explain the various strategies involved in transportation planning along with the many challenges. The attendees were given an explanation of how the workshop was to work and the different planning scenarios they could use to envision and build Hidalgo County. The meeting was designed to allow participants to plan for the future of our roads and highways, but more importantly, to gather ideas, insight, and input regarding how citizen's see the direction of Hidalgo County being developed. Policy members and members from the HCMPO Technical Advisory Committee were also present and participated in the workshop. Many served as facilitators' in giving special guidance and insight to citizens.

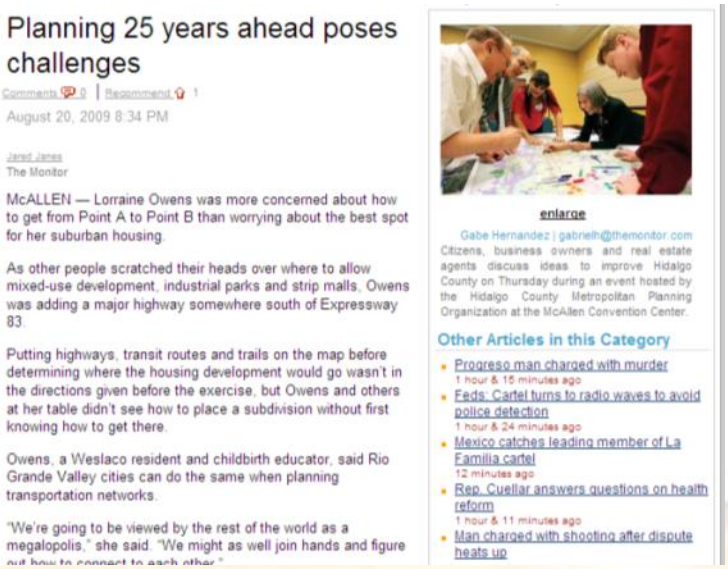


Efforts to attract participants included mailing out roughly 300 invitations to local engineers, land developers, realtors, environmentalist, and Home Owner Association groups.

Flyers were also distributed to the general public during a public event held by the City of Edinburg. The HCMPO used the special event called "National Night Out" on August 5, 2009 as a method of public involvement as well as an outlet to serve to disseminate information regarding the Public Forum. This opportunity

allowed citizens to learn about metropolitan planning, transportation systems infrastructure, and road congestion issues. The HCMPO provided flyers on the forum, a informational booklet entitled "HCMPO Basics" and fun promotional material to roughly 3,500 attendees.

Furthermore, advertising on local news channels and information regarding the forum were placed in newspapers, in public buildings and sent electronically.



Planning 25 years ahead poses challenges

Comments 0 | Recommend 1

August 20, 2009 8:34 PM

Jared Janes
The Monitor

McALLEN — Lorraine Owens was more concerned about how to get from Point A to Point B than worrying about the best spot for her suburban housing.

As other people scratched their heads over where to allow mixed-use development, industrial parks and strip malls, Owens was adding a major highway somewhere south of Expressway 83.

Putting highways, transit routes and trails on the map before determining where the housing development would go wasn't in the directions given before the exercise, but Owens and others at her table didn't see how to place a subdivision without first knowing how to get there.

Owens, a Weslaco resident and childbirth educator, said Rio Grande Valley cities can do the same when planning transportation networks.

"We're going to be viewed by the rest of the world as a megalopolis," she said. "We might as well join hands and figure out how to connect to each other."

enlarge

Gabe Hernandez | gabrielh@themonitor.com

Citizens, business owners and real estate agents discuss ideas to improve Hidalgo County on Thursday during an event hosted by the Hidalgo County Metropolitan Planning Organization at the McAllen Convention Center.

Other Articles in this Category

- Progreso man charged with murder
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- Mexico catches leading member of La Familia cartel
  12 minutes ago
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  1 hour & 11 minutes ago
- Man charged with shooting after dispute heats up

The consulting firm Kimley-Horn and Associates worked in coordination with the MPO to plan and conduct the workshop as the firm is conducting the scenario planning for the MTP update.

The workshop also received media attention and was placed in The Monitor, a local newspaper. The article described the workshop and highlighted the challenges faced by Hidalgo County in planning the next 25 years.

6.0 The Financial Plan

Title 23 (Highways) of the Code of Federal Regulations (CFR), Part 450 (Planning Assistance and Standards), Sub-Part C (Metropolitan Transportation Planning and Programming), Article 322 (Development and content of the metropolitan transportation plan), "Contents of the metropolitan transportation plan" states that:

- The Metropolitan Transportation Plan (MTP) must have a financial plan that demonstrates how the adopted transportation plan can be implemented
- The financial plan shall contain system-level estimates of costs and revenue sources that are reasonably expected to be available to operate and maintain highways and public transportation
- The MPO, public transportation operators, and the State shall cooperatively develop estimates of funds that will be available to support the metropolitan transportation plan implementation
- The financial plan shall include recommendations on any additional financing strategies to fund projects and programs included in the metropolitan transportation plan
- Starting December 11, 2007, revenue and cost estimates that support the metropolitan transportation plan must use an inflation rate to reflect "year of expenditure dollars" based on reasonable financial principles and information, developed cooperatively by the MPO, State, and public transportation operators. For the outer years of the metropolitan transportation plan the financial plan may reflect aggregate cost ranges or cost bands as long as the future funding sources are reasonably expected to be available
- The metropolitan transportation plan must reflect a total project cost developed cooperatively by the MPO, State, and public transportation operators
- For illustrative purposes, the financial plan may include additional projects that would be included in the adopted transportation plan if additional resources were to become available

An important part of planning is identifying the resources needed to implement the solutions identified through the planning process. Solutions that cannot be implemented for lack of funding are no solutions at all. The comparison between needed resources and projected resources is critical. Determining funding shortfalls gives way to the creative process of determining innovative and non-traditional methods of generating revenue. The result is an achievable plan that gives local elected officials and TxDOT a realistic, and therefore effective, foundation from which decisions related to transportation can be made.

This process of financial constraint and resource identification became a requirement of the planning process and was incorporated into the federal planning regulations. This section of the MTP documents the methodology, consistent with federal requirements and good planning practices, used to determine projected revenue sources that can reasonably be expected to be available to the Pharr District and the Hidalgo County Metropolitan Planning Organization.

In working closely with the TxDOT District and Administrative offices, staff of the HCMPO was able to prepare a realistic, and most probable financial forecast of financial resources for use in the MTP development. TxDOT, in its original development of the FY2010-2020 Unified Transportation Program (UTP) estimated that there would be approximately $28.18 billion in funding available for programming. However, during the November 2009 TxDOT Commission meeting, the Commission adopted a UTP with a programming forecast of just $23 billion. The reduction of funding to the amount of almost $5 billion is attributed to the reduction in gas tax receipts of almost 1% for 2009. The FY2010-2020 UTP forecast is based upon a ½% increase in gas sales tax receipts in 2010 and 1% for the following years.

2010 – 2020 UNIFIED TRANSPORATION PROGRAM FUNDING LEVELS

FUNDING CATEGORY	FUNDING DISTRIBUTION
1 - Preventive Maintenance and Rehabilitation	$10,616,572,362
2 - Metropolitan Area Corridor Projects	$2,021,679,257
3 - Urban Area Corridor Projects	$401,112,039
4 – Statewide Connectivity Corridor Projects	$50,691,000
5 – Congestion Mitigation and Air Quality Improvement	$ 1,246,458,775
6 – Structures Federal Highway Bridge Program (HBP); Federal Railroad Grade Separation Program (RGS)	$ 2,813,110,000
7 - Metropolitan Mobility/Rehabilitation	$ 2,106,353,659
8 – Safety Federal Highway Safety Improvement Program, Federal Railway-Highway Crossing Program, Safety Bond Program, Federal Safe Routes to School Program, and Federal High Risk Rural Roads	$ 1,444,275,000
9 - Transportation Enhancements	$ 676,428,578
10 - Supplemental Transportation Projects State Park Roads, Railroad Grade Crossing Replanting, Railroad Signal Maintenance, Landscape Incentive Awards, Green Ribbon Landscape Improvement, Curb Ramp Program, Coordinated Border Infrastructure Program, Comprehensive Development Agreements and Congressional High Priority Projects	$ 768,901,090
11 – District Discretionary	$ 728,040,000
12 - Strategic Priority	$ 176,259,440
TOTAL UTP FUNDING	$ 23,049,881,200

The Pharr District offices applied the funding formulas to the approved funding levels and supplied the HCMPO a reasonable financial forecast for use in obtaining a financially constrained MTP. The budget for the HCMPO 2035 MTP is approximately $1.37 billion. The funding breakdown is shown in the following table. It is worth noting that the HCMPO shows no funding for Category 2, Metropolitan Area Corridor Projects, for the first 10 years of the time span of the 2035 MTP, this due to debt payment. This debt payment is needed for reimbursement of funding that the District was able to utilize so that projects such as the US 83 and US 281 corridors could be completed in an earlier time span. In hindsight this was very beneficial to the region since it is unlikely that either of these projects would be constructed in the present economic situation, and that both of these projects had considerable costs savings associated with them by letting them at an earlier time. Staff is confident that the estimates provided are the most accurate reflection of a financially constrained forecast for development of the FY 2035 MTP.

2010-2035 MTP FUNDING BREAK-DOWN

							Mobility Funds					
Year	Category 1	Category 6	Category 8	Category 9	Category 12	Operational Improvements	Category 2	Category 7	Category 10	Category 11	Total Mobility	Total Funding per year
2010	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$0	$0	$0	$5,444,301	$1,462,500	$6,906,801	$34,637,264
2011	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$9,000,000	$5,444,301	$1,462,500	$15,906,801	$44,137,264
2012	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$12,308,917	$5,444,301	$1,462,500	$19,215,718	$47,446,181
2013	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$12,308,917	$5,444,301	$1,462,500	$19,215,718	$47,446,181
2014	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$12,308,917	$5,444,301	$1,462,500	$19,215,718	$47,446,181
2015	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$12,308,917	$5,444,301	$1,462,500	$19,215,718	$47,446,181
2016	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$12,308,917	$5,444,301	$1,462,500	$19,215,718	$47,446,181
2017	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$12,308,917	$5,444,301	$1,462,500	$19,215,718	$47,446,181
2018	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$12,308,917	$5,444,301	$1,462,500	$19,215,718	$47,446,181
2019	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$12,308,917	$5,444,301	$1,462,500	$19,215,718	$47,446,181
2020	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$12,308,917	$5,444,301	$1,462,500	$19,215,718	$47,446,181
2021	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2022	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2023	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2024	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2025	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2026	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2027	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2028	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2029	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2030	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2031	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2032	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2033	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2034	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2035	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
	$631,253,038	$56,745,000	$22,815,000	$36,504,000	$0	$5,000,000	$128,886,540	$311,914,008	$141,551,826	$38,025,000	$620,377,374	$1,372,694,412

Proposition 12 (General Obligation Bond Projects)

In July 2009, the Texas Legislature authorized TxDOT to go to contract on approximately $2 billion in general obligation bonds for highway improvements. Texas voters approved these Proposition 12 bonds, which are backed by the state's general revenue not by fuel tax revenues, by a 63 percent margin in November 2007.

Project Selection

TxDOT districts and Metropolitan Planning Organizations identified more than $8.9 billion in possible projects. In October 2009, the Texas Transportation Commission was presented with a narrowed list of projects recommended by staff. The Commission approved a final project list at their regular November 19, 2009 meeting in Austin.

The Hidalgo County area received an apportionment of $17,543,295 of the Prop. 12 distributions. The attached listing is reflective of the projects that were selected with the Prop. 12 funding available.

Proposition 12 (General Obligation Bond Projects)

PHARR DISTRICT MASTER LETTING PLAN- PROP 12 PROJECTS IN MPOS

USE FOR ADDITIONAL FINANCIAL CONSTRAINT IN TYPE SHOWN

Let Date	MPO	Highway	CSJ	Description	Limits	PROP 12 FUNDS	TYPE
Apr-10	HC	US 281	0220-02-023	Full Depth Repair Both Lanes	FM 491 to Hidalgo C/L	$ 3,200,620	REHAB
Apr-10	HC	US 281 Military	0220-02-026	Rehab Exist Rdwy	FM 1015 to FM 491	$ 2,323,015	REHAB
May-10	HC	US 281 Military	0220-01-028	Rehab Exist Rdwy	0.5 mi West of FM 2557 to FM 907	$ 1,812,803	REHAB
Feb-11	HC	FM 681	0669-01-048	Rehab ROADWAY	1.5 MI N OF FM 2038 TO FM 681/FM490 (W)	$ 1,199,327	REHAB
May-11	HC	US 281 Military	0220-01-029	Rehab Existing Roadway (Super 2)	FM 907 to FM 493	$ 4,791,133	REHAB
May-11	HC	US 281 Military	0220-01-030	Rehab Existing Roadway (Super 2)	FM 493 to FM 88	$ 4,216,197	REHAB
						$ 17,543,295	

Coordinated Border Infrastructure (CBI) Program Fact Sheet (Statewide)

Year	2005	2006	2007	2008	2009
Authorization	$123M	$145M	$165M	$190M	$210M

Program Purpose

To improve the safe movement of motor vehicles at or across the land border between the U.S. and Canada and the land border between the U.S. and Mexico. This program replaces the TEA-21 Coordinated Border Infrastructure discretionary program which ends after 2005.

Statutory References

SAFETEA-LU Section(s): 1101(a)(11), 1303

Funding/Formula

Funded by contract authority, funds are subject to the overall Federal-aid obligation limitation, not transferable except as permitted for transfer to GSA (see below), and remain available until expended.

Funds are to be apportioned among border States based on factors related to the movement of people and goods through the land border ports of entry within the boundaries of the State as follows:

- 20% based on number of incoming commercial trucks
- 30% number of incoming personal motor vehicles and buses
- 25% based on weight of incoming cargo by commercial trucks
- 25% based on number of land border ports of entry

For FY 2005, $140 million is provided for the combination of the National Corridor Planning and Development and Coordinated Border Infrastructure discretionary programs under Sections 1118 and 1119 of TEA-21 to be administered under the terms of those sections. [1101(a)(19)]

Eligible Use of Funds

States may use funds in a border region, defined as any portion of a border State within 100 miles of an international land border with Canada or Mexico, for the following types of improvements to facilitate/expedite cross border motor vehicle and cargo movements:

- improvements to existing transportation and supporting infrastructure
- construction of highways and related safety and safety enforcement facilities related to international trade
- operational improvements, including those related to electronic data interchange and use of telecommunications
- modifications to regulatory procedures
- international coordination of transportation planning, programming, and border operation with Canada and Mexico.

Program Features

Projects in Canada or Mexico - a border State may use these funds to construct a project in Canada or Mexico if the project directly and predominantly facilitates cross-border vehicle and cargo movement at an international port of entry in the border region of the State. Canada/Mexico must assure that the project will be constructed to standards equivalent to those in the US, and be maintained and used over the useful life of the facility only for the purpose for which the funds were allocated.

Transfers to General Services Administration (GSA) - if a border State requests, the Secretary approves, and GSA agrees, up to 15% or $5M (whichever is less) of the State's border program funds may be transferred to GSA to carry out 1 or more eligible projects. The State must provide the non-Federal share directly to GSA.

Federal Share

The Federal share is generally 80 percent, subject to the sliding scale adjustment. When the funds are used for Interstate projects to add high occupancy vehicle or auxiliary lanes, but not other lanes, the Federal share may be 90 percent, also subject to the sliding scale adjustment. Certain safety improvements listed in 23 USC 120(c) have a Federal share of 100 percent.

Texas Restrictions

On March 30, 2006, the TxDOT Commission adopted Minute Order 110481, in which the State, in cooperation with MPO's adjusted the CBI program with the following restrictions.

- Districts may use these funds within a 50 mile radius of border crossings for the following type of improvements to facilitate/expedite cross-border motor vehicle and cargo movements.
    - improvements to existing transportation and supporting infrastructure
    - construction of highways and related safety and safety enforcement facilities related to international trade
    - operational improvements, including those related to electronic data interchange and use of telecommunications
    - modifications to regulatory procedures
    - international coordination of transportation planning, programming, and border operation with Canada and Mexico.
- A border district may use these funds to construct a project into Mexico at a border crossing if the project directly and predominantly facilitates cross-border vehicle

and cargo movement at an international port of entry in the border region of the State. Mexico must assure that the project will be constructed to standards equivalent to those in the US, and be maintained and used over the useful life of the facility only for the purpose for which the funds were allocated.

Funds are to be apportioned among districts based on factors related to the movement of people and goods through the land border ports of entry within the boundaries of the State as follows:

- 20% based on number of incoming commercial trucks
- 30% number of incoming personal motor vehicles and buses
- 25% based on weight of incoming cargo by commercial trucks
- 25% based on number of land border ports of entry

The HCMPO places all CBI funds into the funding category of the MTP tables. CBI eligible projects are identified on the table for possible development with CBI funds. The HCMPO planning area receives $5.4 million per year for 10 years in CBI funding.

6.1 Background and Methodology - Highways

Unless otherwise stated, district wide financial constraint was based upon historical availability of funding in each specific category dating from FY 1991 through FY 2009. Funding levels for financial constraint for the three metropolitan areas and rural portion of the Pharr District have been generally apportioned to each area by population. This follows the federal model of determining urbanized boundary areas and of apportioning funding based on urbanized area populations.

According to FHWA Interim Guidance, sub-allocation of available funding for short range planning is not allowed. Instead, needs should drive short-range planning. However, for longer time frames, estimating reasonable funding availability by sub-allocating a district's apportionment to the various areas is appropriate.

In these categories, TxDOT and the MPO concurrently reviewed all projects, assessed reasonable constraints and mutually determined the appropriate financial constraint. Lump Sum allocations were made where it is impossible to predict future needs. Such categories include Bridge Replacement and all rehabilitation and preventive maintenance categories.

Future Interstate Highway 69 (I-69)

A portion of the federal legislation authorizing the National Highway System also contained a provision for the inclusion of US 77 and US 77/83 to Brownsville and US 281 to the border to be designated as future interstate highways. To date, no interstate funding has specifically been allocated by the US congress for the upgrading of these highways to interstate standards; however, the Texas Transportation Commission has funded sections of these roadways through the state funded NAFTA program. Either by the US Congress with interstate funding or otherwise, funding for the remaining projects to complete the interstate is presumed to occur during the twenty-five year planning period.

Economically Disadvantaged Counties Program (EDCP)

Senate Bill 370 of the 75th Texas Legislature established the Economically Disadvantaged Counties Program (EDCP). The Texas Transportation Commission amended the Texas Administrative Code on November 20, 1997 allowing the program to become effective on January 1, 1998.

The bill requires the commission to evaluate proposals for highway improvement projects located within economically disadvantaged counties. An economically disadvantaged county has below average per capita taxable property value, below average per capita income, and above average unemployment in comparison to other counties within the state.

Generally, federal funds are provided at a participation ratio of 80% federal to 20% local of the total cost of the projects. A notable exception is federal safety funds requiring only a 10% local match. TxDOT provides the matching funds for roadways on the state highway system (Farm-to-market, State Highways, US Highways and Interstate Highways) and the local jurisdictions provide the local match for off system roadways. The EDCs program provides an opportunity for political subdivisions to adjust their local match requirements. The Hidalgo County Metropolitan Area is included within an economically disadvantaged county. Since political subdivisions within the EDCs can also participate in the program, the local match burden to these local entities can be substantially reduced allowing for more projects requiring scarce local funding. Projects identified in the 2010-2035 Hidalgo Metropolitan Transportation Plan can be evaluated as candidate projects for the EDC program.

SAFETEA-LU

SAFETEA-LU continues the TEA-21 concept of guaranteed funding, keyed to Highway Trust Fund (Highway Account) receipts. In essence, the guaranteed amount is a floor. It defines the least amount of the authorizations that may be spent. Federal-aid Highway program (FAHP) authorizations in SAFETEA-LU total $193.1 billion.

If overall discretionary budget caps were in place, highway and highway safety programs would be protected by a "firewall" from having to compete with other discretionary programs for room within those caps. The highway category firewall is established based on assumptions about future receipts to the Highway Account of the Highway Trust Fund.

Revenue Aligned Budget Authority (RABA)

Beginning in FY 2007, authorizations for Federal-aid highway and highway safety construction programs funded from the Highway Account of the Highway Trust Fund and the Motor Carrier Safety Assistance Program (MCSAP) were adjusted whenever the highway firewall amount was adjusted to reflect estimates of Highway Account receipts. The additional authorizations are called RABA because they serve to align budget authority within the revised revenue. The adjustments to authorizations will be made in the same amounts and in the same years as the adjustments to the firewalls.

If the adjustment is an increase, a portion of the increase in authorizations is reserved for the Federal-aid highway and highway safety construction programs allocated by the Secretary of Transportation – programs that are not apportioned by statutory formula – and for the Motor Carrier Safety Assistance Program. The remainder of the increased funding is distributed to the States proportional to their shares of Federal-aid highway and highway safety construction apportionments from the Highway Account. If the RABA is positive, the first call on the additional funds will be to increase States' return on contributions to the Highway Account of the Highway Trust Fund to 92%. A negative adjustment (reduction) is possible, but only if, as of October 1 of that year, the balance in the Highway Account is less than $6 billion.

Administrative Expense

Unlike prior years, administrative expenses associated with the Federal-aid highway program and the Appalachian Development Highway System are provided as a separate authorization in SAFETEA-LU, not as a takedown from apportioned programs.

Obligation Ceiling

SAFETEA-LU establishes an annual obligation limitation, for the purpose of limiting highway spending each year. The highway obligation limitation applies to all programs within the overall Federal-aid highway program except Emergency Relief, $639 million per year of the Equity Bonus, and funds for certain projects in legislation before 1998. A portion of each year's limitation is reserved, or set aside for administrative expenses and certain allocated programs, with the balance of limitation being distributed to the States. Limitation set aside each year for certain programs – High Priority Projects, the Appalachian Development Highway System, Projects of National and Regional Significance, National Corridor Infrastructure Improvement program, Transportation Improvements, designated bridge projects, and $2 billion of the Equity Bonus – does not expire if not used by the end of the fiscal year, but instead is carried over into future years. The portion of the limitation set aside for research and technology programs may also be carried over, but only for three years.

Equity Bonus

Federal-aid highway funds for individual programs are apportioned by formula using factors relevant to the particular program. After those computations are made, additional funds are distributed to ensure that each State receives an amount based on equity considerations. In SAFETEA-LU, this provision is called the Equity Bonus (replaces TEA-21's Minimum Guarantee) and ensures that each State will be guaranteed a minimum rate of return on its share of contributions to the Highway Account of the Highway Trust Fund, and a minimum increase relative to the average dollar amount of apportionments under TEA-21, and that certain States will maintain the share of total apportionments they each received during TEA-21. An open-ended authorization is provided, ensuring that there will be sufficient funds to meet the objectives of the Equity Bonus.

Relative rate of return

Each State's share of apportionments from the Interstate Maintenance (IM), National Highway System (NHS), Bridge, Surface Transportation (STP), Highway Safety Improvement (HSIP), Congestion Mitigation and Air Quality Improvement (CMAQ), Metropolitan Planning, Appalachian Development Highway System, Recreational Trails, Safe Routes to School, Rail-Highway Grade Crossing, Coordinated Border Infrastructure programs, the Equity Bonus itself, along with High Priority Projects will be at least a specified percentage of that State's share of contributions to the Highway Account of the

Highway Trust Fund. The specified percentage, referred to as a *relative rate of return*, was 90.5% for 2005 and 2006, 91.5% for 2007, and 92% for 2008 and 2009. Specific percentages for the years of 2010 thru 2013 will be disclosed in the new transportation bill to be approved in 2009.

States with certain characteristics such as low population density or total population, low median household income, high Interstate fatality rate, and high indexed state motor fuel rate, are guaranteed a share of apportionments and High Priority Projects not less than the State's average annual share under TEA-21. In any given year, no State is to receive less than a specified percentage (117% for 2005, 118% for 2006, 119% for 2007, 120% for 2008, and 121% for 2009, new values will be released for the years of 2010 thru 2013 with the new transportation bill to be approved in 2009) of its average annual apportionments and High Priority Projects under TEA-21.

Administration of funds

All but $2.639 billion annually of Equity Bonus funding is programmatically distributed among certain programs—Interstate Maintenance, National Highway System, Bridge, Congestion Mitigation and Air Quality Improvement, Surface Transportation Program, and Highway Safety Improvement Program. Amounts programmatically distributed to the programs take on the eligibilities of those programs. The remaining $2.639 billion has the same eligibilities as STP funds, but is not subject to set-asides or sub-allocations. Of this remainder, $639,000,000 is exempt from the obligation limitation and $2 billion receives special no year limitation.

Tolling

SAFETEA-LU provided States with increased flexibility to use tolling, not only to manage congestion, but to finance infrastructure improvements as well. Following are programs available to States to toll on a pilot or demonstration basis:

- Under the **Interstate System Construction Toll Pilot Program**, the Secretary may permit a State or compact of States to collect tolls on an Interstate highway, bridge, or tunnel for the purpose of constructing Interstate highways. This program is limited to 3 projects in total (nationwide), and prohibits a participating State from entering into an agreement with a private person which would prevent the State from improving adjacent public roads to accommodate diverted traffic.

- The **Interstate System Reconstruction and Rehabilitation Toll Pilot Program** was established in TEA-21 to allow up to 3 Interstate tolling projects for the purpose of reconstructing or rehabilitating Interstate highway corridors that could not be adequately maintained or improved without the collection of tolls. SAFETEA-LU makes no revisions to the program, therefore it continues without change, as it was authorized for "a term to be determined by the Secretary, but not less than 10 years."

- The **Value Pricing Pilot Program** was continued, funded at $59 million through 2009, to support the costs of implementing up to 15 variable pricing pilot programs nationwide to manage congestion and benefit air quality, energy use, and efficiency. A new set-aside totaling $12 million through 2009 must be used for projects not involving highway tolls.

- The **Express Lanes Demonstration Program** allows a total of 15 demonstration projects through 2009 to permit tolling to manage high levels of congestion, reduce emissions in a nonattainment or maintenance area, or finance added Interstate lanes for the purpose of reducing congestion. A State, public authority, or public or private entity designated by a State may apply. Eligible toll facilities include existing toll facilities, existing HOV facilities, and a newly created toll lane. Tolls charged on HOV facilities under this program must use pricing that varies according to time of day or level of traffic; for non-HOV, variable pricing is optional. Automatic toll collection is required, and the Secretary must promulgate a final rule specifying requirements, standards, or performance specifications to ensure interoperability within 180 days.

Innovative Finance

To help close the gap between highway infrastructure investment needs and resources available from traditional sources, SAFETEA-LU includes the following provisions which, in addition to tolling options discussed above, will enhance innovative financing and encourage private sector investment:

- **Private Activity Bonds** -- To provide the opportunity for new sources of investment capital to finance our nation's transportation infrastructure system, SAFETEA-LU expands bonding authority for private activity bonds by adding highway facilities and surface freight transfer facilities to a list of other activities eligible for exempt facility bonds. Qualified projects, which must already be receiving Federal assistance, include surface transportation projects eligible under Title 23, international bridge or tunnel projects for which an international entity authorized under Federal or State law is

responsible, and facilities for the transfer of freight from truck to rail or rail to truck (including any temporary storage facilities related to the transfers). These bonds are not subject to the general annual volume cap for private activity bonds for State agencies and other issuers, but are subject to a separate National cap of $15 billion.

- **Transportation Infrastructure Finance and Innovation Act (TIFIA) --** The TIFIA program provides Federal credit assistance to nationally or regionally significant surface transportation projects, including highway, transit and rail. This program was established in TEA-21 to fill market gaps and leverage substantial private co-investment by providing projects with supplemental or subordinate debt. SAFETEA-LU authorizes a total of $610 million through 2009 to pay the subsidy cost (similar to a commercial bank's loan reserve requirement) of supporting Federal credit under TIFIA. To encourage broader use of TIFIA financing, the threshold required for total project cost is lowered to $50 million ($15 million for ITS projects), and eligibility is expanded to include public freight rail facilities or private facilities providing public benefit for highway users, intermodal freight transfer facilities, access to such freight facilities and service improvements to such facilities including capital investment for intelligent transportation systems (ITS).

- **State Infrastructure Banks (SIBS) --** SAFETEA-LU establishes a new SIB program which allows **all** States, Puerto Rico, the District of Columbia, American Samoa, Guam, the Virgin Islands, and the Commonwealth of the Northern Mariana Islands to enter into cooperative agreements with the Secretary to establish infrastructure revolving funds eligible to be capitalized with Federal transportation funds authorized for fiscal years 2005-2009. This program gives States the capacity to increase the efficiency of their transportation investment and significantly leverage Federal resources by attracting non-Federal public and private investment.

Operation of the Highway Trust Fund

The Highway Trust Fund (HTF) is the source of funding for most of the programs in the Act. The HTF is composed of the Highway Account, which funds highway and intermodal programs, and the Mass Transit Account. Federal motor fuel taxes are the major source of income into the HTF.

During the time that SAFETEA-LU was being developed, a number of changes impacting the Highway Trust Fund were adopted in the American Jobs Creation Act of 2004. This Act replaced the reduced tax rates that applied to gasohol with a credit paid from the General

Fund of the Treasury and ended the retention of a portion of the tax on gasohol by the General Fund. These actions, coupled with a number of provisions to reduce tax evasion, provided increased tax revenues to the Highway Trust Fund.

SAFETEA-LU extends the imposition of the highway user taxes, generally at the rates that were in place when the legislation was enacted, through September 30, 2011. Provisions for full or partial exemption from highway user taxes were also extended. Additionally, provision for deposit of almost all of the highway user taxes into the HTF is extended through September 30, 2011.

Federal law regulates not only the imposition of the taxes, but also their deposit into and expenditure from the HTF. For the Highway Account, authority to expend from the HTF for programs under the Act and previous authorization acts is provided through September 29, 2009 and through September 30, 2009 for administrative expenditures. For the Mass Transit Account, expenditures are authorized through September 30, 2009. After these dates, expenditures may be made only to liquidate obligations made before that date.

Highway Tax Compliance

Traditionally, the highway programs of the Federal government and most States depend on highway user tax receipts as the principal source of funding. SAFETEA-LU continues the Highway Use Tax Evasion program, funded at $127.1 million through 2009, to reduce motor fuel tax evasion. Funds may be used for inter-governmental enforcement efforts, including research and training, and for efforts of the Internal Revenue Service, including the development, operation, and maintenance of databases to support tax compliance efforts. No funding is allocated directly to the States, although States are permitted to use ¼ of 1 percent of their Surface Transportation Program funding for fuel tax evasion activities. Eligible activities are expanded to include efforts to address State-Indian tribe motor fuel tax issues and tax evasion issues associated with foreign imported fuel. A new memorandum of understanding with the Internal Revenue Service relating to the development and maintenance of electronic databases to support excise tax fuel reporting is required.

6.2 Background and Methodology – Transit

The Federal Transit Administration (FTA) is one of 11 operating administrations within the U.S. Department of Transportation that provides funding of combined formula and discretionary programs totaling more than $10B to support a variety of locally planned,

constructed, and operated public transportation systems throughout the U.S., including buses, subways, light rail, commuter rail, streetcars, monorail, passenger ferry boats, inclined railways, and people movers. To carry out its mission, FTA administers a variety of grant programs to serve local communities throughout the United States. Following are the main transit funding categories available to the Lower Rio Grande Valley.

Section 5307 - Large Urban Cities

This program (49 U.S.C. 5307) makes Federal resources available to urbanized areas and to Governors for transit capital and operating assistance in urbanized areas and for transportation related planning. An urbanized area is an incorporated area with a population of 50,000 or more that is designated as such by the U.S. Department of Commerce, Bureau of the Census.

Eligible purposes include planning, engineering design and evaluation of transit projects and other technical transportation-related studies; capital investments in bus and bus-related activities such as replacement of buses, overhaul of buses, rebuilding of buses, crime prevention and security equipment and construction of maintenance and passenger facilities; and capital investments in new and existing fixed guide-way systems including rolling stock, overhaul and rebuilding of vehicles, track, signals, communications, and computer hardware and software. All preventive maintenance and some Americans with Disabilities Act complementary paratransit service costs are considered capital costs.

For urbanized areas with 200,000 in population or more, funds are apportioned and flow directly to a designated recipient selected locally to apply for and receive Federal funds. For these urbanized areas operating assistance is not an eligible expense. Also in these areas, at least one percent of the funding apportioned to each area must be used for transit enhancement activities such as historic preservation, landscaping, public art, pedestrian access, bicycle access, and enhanced access for persons with disabilities.

For urbanized areas under 200,000 in population, the funds are apportioned to the Governor of each state for distribution. A few areas under 200,000 in population have been designated as transportation management areas and receive apportionments directly.

Section 5310 - Transportation for Elderly Persons and Persons with Disabilities

This program (49 U.S.C. 5310) provides formula funding to States for the purpose of assisting private nonprofit groups in meeting the transportation needs of the elderly and persons with disabilities when the transportation service provided is unavailable, insufficient, or inappropriate to meeting the needs. Funds are apportioned based on each State's share of population for these groups of people.

Funds are obligated based on the annual program of projects included in a statewide grant application. The State agency ensures that local applicants and project activities are eligible and in compliance with Federal requirements, that private non-profit transportation providers have an opportunity to participate, and that the program provides for as much coordination of federally assisted transportation services as possible. Once FTA approves the application, funds are available for state administration of its program and for allocation to individual sub-recipients within the state.

The Section 5310 program was established in 1975 as a discretionary capital assistance program. In cases where public transit was inadequate or inappropriate, the program awarded grants to private non-profit organizations to serve the transportation needs of the elderly persons and persons with disabilities. FTA apportioned the funds among the States by formula for distribution to local agencies, a practice made a statutory requirement by the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA).

In the early years of the program, many of the sub-recipient non-profit agencies used the vehicles primarily for transportation of their own clients. Funding for this section ranged between $20–35 million annually until the passage of ISTEA, when it increased to the $50–60 million range. ISTEA also introduced the eligibility of public agencies under limited circumstances to facilitate and encourage the coordination of human service transportation. Increasingly, FTA guidance encouraged and required coordination of the program with other Federal human service transportation programs. In lieu of purchasing vehicles, acquisition of service in order to promote use of private sector providers and coordination with other human service agencies and public transit providers was made an eligible expense under ISTEA. Other provisions of ISTEA introduced the ability to transfer flexible funds to the program from certain highway programs, and the flexibility to transfer funds from the Section 5310 program to the rural and urban formula programs. The Transportation Equity Act for the 21st Century (TEA–21) enacted in 1998, reauthorized the Section 5310 program. TEA–21 increased the funding levels for the Section 5310 program but made no significant program changes.

In 2005 the Safe Accountable Flexible Efficient Transportation Equity Act – A Legacy for Users (SAFETEA–LU) introduced the requirement that projects funded with 5310 funds be derived from a locally developed, coordinated public transit-human services transportation plan, it removed the flexibility that funds can be transferred to Section 5311 for program purposes during the fiscal year apportioned. Title 49 U.S.C. 5310 authorizes the formula assistance program for the special needs of elderly individuals and individuals with

disabilities. FTA, on behalf of the Secretary of Transportation, apportions the funds appropriated annually to the States based on an administrative formula that considers the number of elderly individuals and individuals with disabilities in each State. These funds are subject to annual appropriations. Title 49 U.S.C. 5310(a)(1) authorizes funding for public transportation capital projects planned, designed and carried out to meet the special needs of elderly individuals and individuals with disabilities.

Below are the Section 5310 Annual Apportionments from Fiscal Years 2005 through 2009.

FY 2005: $94,526,689

FY 2006: $110,325,600

FY 2007: $116,659,554

FY: 2008: $126,723,652

FY 2009 $135,823,746

Section 5311 - Rural and Small Urban Areas

This program (49 U.S.C. 5311) provides formula funding to states for the purpose of supporting public transportation in areas of less than 50,000 in population. Eighty percent of the statutory formula is based on the non-urbanized population of the States. Twenty percent of the formula is based on land area. No State may receive more than 5 percent of the amount apportioned for land area. In addition, FTA adds amounts apportioned based on non-urbanized population according to the growing States formula factors of 49 U.S.C. 5340 to the amounts apportioned to the States under the Section 5311 program.

Funds may be used for capital, operating, and administrative assistance to state agencies, local public bodies, Indian tribes, and nonprofit organizations, and operators of public transportation services. The state must use 15 percent of its annual apportionment to support intercity bus service, unless the Governor certifies, after consultation with affected intercity bus providers that these needs of the state are adequately met. Projects to meet the requirements of the Americans with Disabilities Act, the Clean Air Act, or bicycle access projects, may be funded at 90 percent Federal match. The maximum FTA share for operating assistance is 50 percent of the net operating costs.

The goals of the non-urbanized formula program are: to enhance the access of people in non-urbanized areas to health care, shopping, education, employment, public services, and recreation; to assist in the maintenance, development, improvement, and use of public

transportation systems in rural and small urban areas; to encourage and facilitate the most efficient use of all Federal funds used to provide passenger transportation in non-urbanized areas through the coordination of programs and services; to assist in the development and support of intercity bus transportation; and to provide for the participation of private transportation providers in non-urbanized transportation to the maximum extent feasible.

Funding is apportioned by a statutory formula that is based on the latest U.S. Census figures of areas with a population less than 50,000. The amount that the state may use for state administration, planning, and technical assistance activities is limited to 15 percent of the annual apportionment. States must spend 15 percent of the apportionment to support rural intercity bus service unless the Governor certifies, after consultation with affected intercity bus providers that the intercity bus needs of the state are adequately met.

The maximum Federal share for capital and project administration is 80 percent (except for projects that meet the requirements of the Americans with Disabilities Act (ADA), the Clean Air Act, or bicycle access projects, which may be funded at 90 percent). The maximum Federal share for operating assistance is 50 percent of the net operating costs. The local share is 50 percent, which shall come from an undistributed cash surplus, a replacement or depreciation cash fund or reserve, or new capital.

Section 5311 (b)(3) - Rural Transit Assistance Program

The Rural Transit Assistance Program (RTAP) (49 U.S.C. 5311(b)(3)) provides a source of funding to assist in the design and implementation of training and technical assistance projects and other support services tailored to meet the needs of transit operators in non-urbanized areas. RTAP has both State and national program components. The State program provides an annual allocation to each State to develop and implement training and technical assistance programs in conjunction with the State's administration of the Section 5311 formula assistance program. The national program provides for the development of information and materials for use by local operators and State administering agencies and supports research and technical assistance projects of national interest. There is no Federal requirement for a local match.

FTA allocates RTAP funds to the states based on an administrative formula. The RTAP formula first allocates $65,000 to each of the states and Puerto Rico, and $10,000 to the Insular Areas of Guam, American Samoa, and Northern Marianas, and then distributes the balance according to non-urbanized population of the states. The national component of

the program is funded under a competitive cooperative agreement. There is no Federal requirement for a local match.

Section 5316 - Job Access and Reverse Commute Program

The Job Access and Reverse Commute program (JARC) was established to address the unique transportation challenges faced by welfare recipients and low-income persons seeking to obtain and maintain employment. Many new entry-level jobs are located in suburban areas, and low-income individuals have difficulty accessing these jobs from their inner city, urban, or rural neighborhoods. In addition, many entry level-jobs require working late at night or on weekends when conventional transit services are either reduced or non-existent. Finally, many employment related-trips are complex and involve multiple destinations including reaching childcare facilities or other services. The JARC program also funds reverse commute transit services available to the general public.

The JARC program has had a dramatic impact on the lives of thousands of welfare recipients and low-income families, helping individuals successfully transition from welfare to work and reach needed employment support services such as childcare and job training activities.

Section 3037 of the Transportation Equity Act for the 21st Century (TEA–21) required that JARC project selection be made through a national competition based on statutorily specified criteria. FTA conducted competitions and selected projects for funding appropriated in FY 1999–2002. However, beginning in FY 2000, Congress also began designating specific projects and recipients to receive JARC funding in the conference reports accompanying the annual appropriations acts, and directed FTA to honor those designations with statutory language specifying that "notwithstanding any other provision of law, projects and activities designated [in the conference reports] shall be eligible for funding." Each year, more projects were congressionally designated until finally all JARC project funding was allocated to congressionally designated projects and recipients. Although SAFETEA–LU repealed Section 3037 of TEA–21 and substituted the new provisions of 49 U.S.C. 5316, those projects designated by Congress under Section 3037 and not yet obligated remain available to the project for obligation under the terms and conditions of Section 3037.

With the passage of the Safe Accountable Flexible and Efficient Transportation Equity Act – A Legacy for Users (SAFETEA–LU), JARC funding was allocated by formula to States for areas with populations below 200,000, and to designated recipients for areas with populations of 200,000 or more. The formula is based on the number of eligible low-

income and welfare recipients in urbanized and rural areas. SAFETEA-LU authorized a total of $727 million for JARC grants from Fiscal Years 2006 through 2009.

The formula-based program is intended to provide an equitable funding distribution to States and communities as well as stable and reliable funding in order to implement locally developed, coordinated public transit-human services transportation plans. FTA continues to provide maximum flexibility to communities in designing plans and projects to meet the transportation needs of low-income people and welfare recipients.

Section 5317 - New Freedom Program

The New Freedom formula grant program is a new program authorized in the Safe Accountable Flexible and Efficient Transportation Equity Act - A Legacy for Users (SAFETEA-LU) for the purpose of providing additional tools to overcome existing barriers facing Americans with disabilities seeking integration into the work force and full participation in society. Lack of adequate transportation is a primary barrier to work for individuals with disabilities. The 2000 Census showed that only 60 percent of people between the ages of 16 and 64 with disabilities are employed. The New Freedom formula grant program seeks to reduce barriers to transportation services and expand the transportation mobility options available to people with disabilities beyond the requirements of the Americans with Disabilities Act (ADA) of 1990.

The New Freedom Program grew out of the New Freedom Initiative introduced by the Bush Administration under Executive Order 13217, "Community-Based Alternatives for Individuals with Disabilities," on June 18, 2001. The Order states: "The United States is committed to community-based alternatives for individuals with disabilities and recognizes that such services advance the best interests of the United States", and calls upon the Federal government to assist States and localities to swiftly implement the decision of the United States Supreme Court in Olmstead v. L.C.

Executive Order 13217 instructed six Federal agencies, including the Departments of Justice, Health and Human Services, Education, Labor, Housing and Urban Development and the Social Security Administration to "evaluate the policies, programs, statutes and regulations of their respective agencies to determine whether any should be revised or modified to improve the availability of community-based services for qualified individuals with disabilities." The Departments of Transportation and Veterans Affairs, the Small Business Administration, and the Office of Personnel Management, though not named in the Executive Order, also joined in the implementation effort. Together, these agencies formed the Interagency Council on Community Living under the leadership of the DHHS.

Individuals who are transportation-disadvantaged face different challenges in accessing services depending on whether they live in urban, rural, or suburban areas. The geographic dispersion of transportation-disadvantaged populations also creates challenges for human service programs hoping to deliver transportation for their passengers.

Over the years, in response to these challenges, Federal, State and local governments, and community-based organizations created specialized programs to meet particular transportation needs. At the Federal level alone, there are at least 62 separate programs, administered by eight Federal departments, and even more agencies, that provide special transportation services to individuals with disabilities, older adults, and people with low income. Most of these are human service programs that fund limited transportation services to provide eligible participants with access to particular services, such as job training, health care, senior centers, or rehabilitation programs.

President Bush included funds for the New Freedom Program in the annual budget request to Congress since FY 2003; however, it was not until the enactment of SAFETEA–LU in 2005 that funding was authorized by Congress. Funding was first appropriated for the transportation provision in FY 2006. The New Freedom Program is intended to fill the gaps between human service and public transportation services previously available and to facilitate the integration of individuals with disabilities into the workforce and to a full participation in the community.

Due to the lack of a federal transportation bill, HCMPO staff worked along with TxDOT, PTN Division to forecast reasonable funding levels for the life of the 2035 MTP.

New Freedom Funding Forecast

Year	Ave % Increase	Amount
2010	12.00%	$228,340
2011	12.00%	$255,741
2012	12.00%	$286,430
2013	12.00%	$320,801
2014	12.00%	$359,297
2015	12.00%	$402,413
2016	12.00%	$450,703
2017	12.00%	$504,787
2018	12.00%	$565,361
2019	12.00%	$633,205
2020	12.00%	$709,189
2021	12.00%	$794,292
2022	12.00%	$889,607
2023	12.00%	$996,360
2024	12.00%	$1,115,923
2025	12.00%	$1,249,834
2026	12.00%	$1,399,814
2027	12.00%	$1,567,792
2028	12.00%	$1,755,927
2029	12.00%	$1,966,638
2030	12.00%	$2,202,635
2031	12.00%	$2,466,951
2032	12.00%	$2,762,985
2033	12.00%	$3,094,543
2034	12.00%	$3,465,888
2035	12.00%	$3,881,795

JARC Funding Forecast

Year	Ave % Increase	Amount
2010	10.37%	$987,403
2011	10.37%	$1,089,797
2012	10.37%	$1,202,809
2013	10.37%	$1,327,540
2014	10.37%	$1,465,206
2015	10.37%	$1,617,148
2016	10.37%	$1,784,846
2017	10.37%	$1,969,935
2018	10.37%	$2,174,217
2019	10.37%	$2,399,683
2020	10.37%	$2,648,530
2021	10.37%	$2,923,183
2022	10.37%	$3,226,317
2023	10.37%	$3,560,886
2024	10.37%	$3,930,150
2025	10.37%	$4,337,706
2026	10.37%	$4,787,526
2027	10.37%	$5,283,993
2028	10.37%	$5,831,943
2029	10.37%	$6,436,715
2030	10.37%	$7,104,203
2031	10.37%	$7,840,909
2032	10.37%	$8,654,011
2033	10.37%	$9,551,432
2034	10.37%	$10,541,915
2035	10.37%	$11,635,112

FTA 5307 Funding Forecast

Year	Ave % Increase	Amount
2010	12.19%	$3,984,062
2011	12.19%	$4,469,719
2012	12.19%	$5,014,578
2013	12.19%	$5,625,855
2014	12.19%	$6,311,647
2015	12.19%	$7,081,037
2016	12.19%	$7,944,215
2017	12.19%	$8,912,615
2018	12.19%	$9,999,063
2019	12.19%	$11,217,948
2020	12.19%	$12,585,416
2021	12.19%	$14,119,578
2022	12.19%	$15,840,755
2023	12.19%	$17,771,743
2024	12.19%	$19,938,118
2025	12.19%	$22,368,575
2026	12.19%	$25,095,304
2027	12.19%	$28,154,422
2028	12.19%	$31,586,446
2029	12.19%	$35,436,834
2030	12.19%	$39,756,584
2031	12.19%	$44,602,912
2032	12.19%	$50,040,006
2033	12.19%	$56,139,883
2034	12.19%	$62,983,335
2035	12.19%	$70,661,004

6.3 Funding Categories

The Metropolitan Transportation Plan (MTP) provides a 25 year listing of all bridge and highway projects utilizing federal funding within the Hidalgo County Metropolitan Planning Organization (HCMPO) region. Identification of projects, funding, and schedules to successfully implement the Transportation Plan are done as a collaborative effort by the MPO, the state, and local transit operators. The MTP has to be fiscally constrained due to the Safe Accountable Flexible Efficient Transportation Equity Act – a Legacy for Users (SAFETEA-LU) regulations.

The Texas Department of Transportation (TxDOT) annually sub-allocates a portion of the federal funds to each Texas MPO based upon agreed upon formulas. These funds are distributed thru 12 categories from which 9 are utilized by the HCMPO: Preventive Maintenance and Rehabilitation, Metropolitan Area Corridor Projects, Structures Replacement and Rehabilitation, Metropolitan Mobility/Rehabilitation, Safety, Transportation Enhancement, Miscellaneous, District Discretionary, and Strategic Priority funds which are utilized for financing MPO area local government sponsored transportation improvement projects. The Hidalgo MPO Policy Committee is responsible for managing and directing the development of a multiyear program of local government sponsored projects within available annual budget amounts. Descriptions of all federal funding programs are listed below.

Category 1. Preventive Maintenance and Rehabilitation

These funds may be used for rehabilitation of the Interstate Highway System main lanes, frontage roads, structures, signs, pavement markings, striping, etc. The Transportation Planning and Programming Division (TPP) may approve the use of rehabilitation funds for the construction of interchanges and high occupancy vehicle (HOV) lanes on the Interstate Highway System. Rehabilitation funds may not be used for the construction of new single occupancy vehicle (SOV) lanes.

Category 2. Metropolitan Area Corridor Projects

Projects are recommended by Districts based on corridors that are selected by MPO's through the metropolitan planning process. Mobility and added capacity projects within a Transportation Management Area (TMA) must have the concurrence and support of the MPO. A TMA is a metropolitan planning area with a population of 200,000 or greater and is represented by an MPO.

Category 3. Urban Area Corridor Projects

Mobility and added capacity projects on major state highway system corridors which serve the mobility needs of the Urban Area (non-TMA) MPOs.

Category 4. Statewide Connectivity Corridor Projects

Mobility and added capacity projects on major state highway system corridors which serve the mobility needs of statewide connectivity between urban areas and corridors which serve mobility needs throughout the state. Composed of a highway connectivity network which includes:

- The Texas Trunk System
- The National Highway System (NHS)
- Connections from Texas Trunk System or NHS to major ports on international borders or Texas water ports

Category 5. Congestion Mitigation and Air Quality Improvement

For projects selected by MPOs in consultation with TxDOT and funded by the District's Allocation Program. The commission allocates money based on population percentages within areas failing to meet air quality standards. These funds are popularly known as CMAQ funds.

Category 6. Structures Replacement and Rehabilitation

In the Structures Federal Highway Bridge Replacement and Rehabilitation Program (HBRRP) projects are selected statewide based on a prioritized condition of eligible bridges selection method supervised by the Bridge Division. This category replaces or rehabilitates eligible bridges on and off the state highway system. In the Structures Federal Railroad Grade Separation Program (RGS) projects are selected statewide based on cost-benefit index for at-grade railroad crossing elimination projects and prioritization ranking for railroad underpass replacement or rehabilitation projects by the Bridge Division. This category eliminates at-grade highway-railroad crossings through the construction of highway overpasses or railroad underpasses, and rehabilitates or replaces deficient railroad underpasses on the state highway system.

Category 7. Metropolitan Mobility/Rehabilitation

Is a commission allocation program. Allocation of funds is based on population. Projects are selected by the MPO's in consultation with TxDOT. This category addresses transportation needs within the TMAs.

Category 8. Safety

There are 5 different programs:

a) The Federal Highway Safety Improvement Program addresses safety related projects on and off the state highway system. Projects are evaluated using three years of crash data, and ranked by the Safety Improvement Index.
b) The Federal Railway-Highway Crossing Program addresses the installation of automatic railroad warning devices at railroad crossings on and off the state highway system. Projects are selected from statewide inventory lists which are prioritized by an index. It provides incentive payments to local governments for closing crossings. It also improves signal preemption and coordination of train control signals.
c) In the Safety Bond Program the allocations are approved by the commission, this program is managed as an allocation program on a statewide basis.
d) The Federal Safe Routes to School Program addresses safety related projects on and off the state highway system. The program is designed to enable and encourage primary and secondary school children to walk and bicycle to school. Both infrastructure-related and behavioral projects are allowed.
e) The Federal High Risk Rural Roads Program addresses safety related construction and operational improvements on high risk rural roads. High risk rural roads are roadways functionally classified as rural major or minor collectors or rural local roads with a fatal and incapacitating injury crash rate above the statewide average for these classes of roadways or likely to experience an increase in traffic volumes that leads to a crash rate in excess of the average statewide rate.

Category 9. Transportation Enhancement Program

Eligible Transportation Enhancement (TE) projects must demonstrate a relationship to the inter-modal surface transportation system. The TE program is intended to encourage transportation related activities that go beyond the customary cultural or environmental mitigation required when developing a transportation improvement project. The intent of the program is to more creatively integrate transportation facilities into their surrounding

communities and the natural environment, and to enhance the traditional transportation system with cultural, aesthetic, and environmental quality of life aspects. Enhancement projects can be either supplemental to, or physically associated with, a planned roadway improvement, or physically separate from the existing roadway system.

Eligible TE activities are defined by SAFETEA-LU to include the following with the activities grouped into three main categories:

Historic and Archeological Transportation Enhancements

- Acquisition of historic sites
- Historic highway programs including the provision of related tourist and welcome center facilities
- Historic Preservation
- Rehabilitation and operation of historic transportation buildings, structures, or facilities (including historic railroad facilities and canals)
- Archeological planning and research
- Establishment of transportation museums

Scenic and Environmental Transportation Enhancements

- Acquisition of scenic easements and scenic sites
- Scenic highway programs, including the provision of related tourist and welcome center facilities
- Landscaping and other scenic beautification
- Control and removal of outdoor advertising
- Mitigation of water pollution due to highway runoff, or reduction of vehicle-caused wildlife mortality while maintaining habitat connectivity

Pedestrian and Bicycle Facilities

- Provision of facilities for pedestrians and bicycles
- Provision of safety and education activities for pedestrians and bicycles
- Preservation of abandoned railway corridors (including the conversion and use thereof for pedestrian and bicycle trails)

Category 10. Supplemental Transportation Projects

There are 10 different programs:

a) Construction Landscape Programs address new landscape development and establishment projects such as typical right-of-way landscape development and establishment, aesthetic improvement, rest area/picnic area landscape development, and erosion control and environmental mitigation activities on the state highway system.
b) The State Park Roads Program addresses construction and rehabilitation of roadways within or adjacent to state parks, fish hatcheries, etc, subject to Memorandum of Agreements between TxDOT and TPWD. Locations are selected and prioritized by TPWD.
c) The Railroad Grade Crossing Re-planking Program addresses the replacements of rough railroad crossing surfaces on the state highway system. Project selection is based on the conditions of the riding surface and the cost per vehicle using the crossing.
d) The Railroad Signal Maintenance Program addresses the contributions to each railroad company based on the number of state highway system crossings and the type of automatic devices present at each crossing.
e) The Landscape Cost Sharing Program allows the department to negotiate and execute joint landscape development projects through partnerships with local governments and support from civic associations, private businesses and developers for the aesthetic improvement of our state transportation system.
f) The Landscape Incentive Awards Program allows the department to negotiate and execute joint landscape development projects in nine locations based on population categories in association with the Keep Texas Beautiful Governor's Community Achievement Awards Program. The awards recognize participating cities or communities efforts in litter control, quality of life issues and beautification programs and projects.
g) The Curb Ramp Program addresses construction or replacement of curb ramps at on-system intersections to make the intersections more accessible to pedestrians with disabilities.
h) The Green Ribbon Landscape Improvement Program allows the department to address new landscape development and establishment projects within districts that have air quality non-attainment or near non-attainment counties.

i) In the Coordinated Border Infrastructure Program projects are selected to improve the safe movement of motor vehicles at or across the land border between the US and Mexico. These projects are selected based on preliminary discussions with the individual bridge owners/operators and with the criteria of alleviating vehicular/freight traffic movements from and to existing international bridges.
j) Supplemental Transportation Projects (Federal) include federal programs such as Forest Highways, Indian Reservation Highways, Federal Lands Highways, Ferry Boat Discretionary and Congressional High Priority Projects.

Category 11. District Discretionary

The Commission allocates these projects by formula. The projects are selected by the districts.

Category 12. Strategic Priority

The Commission selects projects which generally promote economic opportunity, increase efficiency on military deployment routes or to retain military assets in response to the federal military base realignment and closure report, or maintain the ability to respond to both man-made and natural emergencies. Also, the Commission approves pass-through financing projects in order to help local communities address their transportation needs.

Summary

HCMPO staff coordinated financial forecasting process with the TxDOT, Pharr District Offices throughout the 2035 MTP process. The table on the following page illustrates the funding amounts available for the 25 year forecasting horizon. Although Category 2 funding levels are forecasted at zero for the first ten years, Category 2 funding is being used for debt management. The HCMPO advanced as many projects as possible during the 2030 MTP cycle; this served several benefits to the citizens of Hidalgo County. Projects that would not be developed in the present economic structure were developed during the last five years. Furthermore, funding for the projects that were advanced were maximized as cost savings can be associated to each project. This cost savings is based upon increases in materials and labor that would have had a negative impact upon project development.

2010-2035 MTP FUNDING BREAK-DOWN

							Mobility Funds					
Year	Category 1	Category 6	Category 8	Category 9	Category 12	Operational Improvements	Category 2	Category 7	Category 10	Category 11	Total Mobility	Total Funding per year
2010	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$0	$0	$0	$5,444,301	$1,462,500	$6,906,801	$34,637,264
2011	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$9,000,000	$5,444,301	$1,462,500	$15,906,801	$44,137,264
2012	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$12,308,917	$5,444,301	$1,462,500	$19,215,718	$47,446,181
2013	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$12,308,917	$5,444,301	$1,462,500	$19,215,718	$47,446,181
2014	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$12,308,917	$5,444,301	$1,462,500	$19,215,718	$47,446,181
2015	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$12,308,917	$5,444,301	$1,462,500	$19,215,718	$47,446,181
2016	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$12,308,917	$5,444,301	$1,462,500	$19,215,718	$47,446,181
2017	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$12,308,917	$5,444,301	$1,462,500	$19,215,718	$47,446,181
2018	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$12,308,917	$5,444,301	$1,462,500	$19,215,718	$47,446,181
2019	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$12,308,917	$5,444,301	$1,462,500	$19,215,718	$47,446,181
2020	$24,278,963	$1,170,000	$877,500	$1,404,000	$0	$500,000	$0	$12,308,917	$5,444,301	$1,462,500	$19,215,718	$47,446,181
2021	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2022	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2023	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2024	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2025	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2026	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2027	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2028	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2029	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2030	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2031	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2032	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2033	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2034	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
2035	$24,278,963	$2,925,000	$877,500	$1,404,000	$0	$0	$8,592,436	$12,808,917	$5,444,301	$1,462,500	$28,308,154	$57,793,617
	$631,253,038	$56,745,000	$22,815,000	$36,504,000	$0	$5,000,000	$128,886,540	$311,914,008	$141,551,826	$38,025,000	$620,377,374	$1,372,694,412

6.4 Texas Mobility Fund

The Highway Trust Fund

The Highway Trust Fund (HTF) is the source of funding for most of the programs in the Act. The HTF is composed of the Highway Account, which funds highway and intermodal programs, and the Mass Transit Account. Federal motor fuel taxes are the major source of income into the HTF. Most of the Highway Trust Fund income is derived from motor-fuel taxes, including an 18.4 cent per gallon tax on gasoline and a 24.4 cent per gallon tax on diesel fuel. On average, each penny of the Federal motor fuel tax produces over $1.5 billion in revenues annually. Fuel taxes are by far the largest part of the Highway Account income, constituting 83 percent of the account's revenue in FY 1997.

During the time that the Safe Accountable Flexible Efficient Transportation Equity Act – a Legacy for Users (SAFETEA-LU) was being developed, a number of changes impacting the Highway Trust Fund were adopted in the American Jobs Creation Act of 2004. This Act replaced the reduced tax rates that applied to gasohol with the credit paid from the General Fund of the Treasury and ended the retention of a portion of the tax on gasohol by the General Fund. These actions, coupled with a number of provisions to reduce tax evasion, provided increased tax revenues to the Highway Trust Fund.

SAFETEA-LU extends the imposition of the highway user taxes, generally at the rates that were in place when the legislation was enacted, through September 30, 2011. Provisions for full or partial exemption from highway-user taxes were also extended. Additionally, provision for deposit of almost all of the highway-user taxes into the Highway Trust Fund was extended through September 30, 2011.

Federal law regulates not only the imposition of the taxes, but also their deposit into and the expenditure from the HTF. For the Highway Account authority to expend from the Highway Trust Fund for programs under the Act and previous authorization acts is provided through September 29, 2009, and through September 30, 2009 for administrative expenditures. For the Mass Transit Account, expenditures are authorized through September 30, 2009.

Traditionally, the highway programs of the Federal government and most States depend on highway-user tax receipts as the principal source of funding. SAFETEA-LU continues the Highway Use Tax Evasion program funded at $127.1 million through 2009, to reduce motor fuel tax evasion. Funds may be used for intergovernmental enforcement efforts, including research and training and for efforts of the Internal Revenue Service, including the

development, operation, and maintenance of databases to support tax compliance efforts. No funding is allocated directly to the States, although States are permitted to use ¼ or 1 percent of their Surface Transportation Program funding for fuel tax evasion activities.

The Texas Mobility Fund

On March 27, 2002, the Transportation Committee met in Austin to examine the first interim charge regarding long-term financing options for mobility in Texas, including funding the Texas Mobility Fund.

As Texas' population continues to grow and urbanization continues to accelerate, it becomes more apparent that transportation will play a more significant role in the future. Currently, Texas highway funding cannot sufficiently met the needs of the state. Texas only has the resources to fund 36% of the critical highway needs and only 40% of a maintenance level relative to congestion. The state of Texas ranks 47th in per capita highway spending and 3rd in the greatest diversion of motor fuels tax revenues to other purposes.

The growth of the Texas economy, expanding tourism, greater urbanization, increasing international trade, and population growth have all contributed to this shortfall for Texas highways. In the future, these factors will only increase, and if the state is to keep pace with its growing needs, Texas must evaluate alternative funding options.

In 2001, the 77th Legislature approved Senate Bill 4 and Senate Joint Resolution 16, which established the Texas Mobility Fund. In November, the voters approved the measure and the Texas Mobility Fund was created. The Mobility Fund is a creative option which allows the Legislature to appropriate general revenue funds into the Mobility Fund, which could then be used to issue bonds. There are many possible revenue sources for the Mobility Fund. However, according to SJR 16, no constitutionally dedicated funds, such as vehicle registration fees or motor fuel taxes, can be appropriated into the fund.

Some available funds which could be considered to fund the Texas Mobility Fund are: motor vehicle inspection fee, drivers license fee, driver record information fee, motor vehicle certificates fee, special vehicle registration fee for oversize/overweight vehicles, motor vehicle sales and use tax, and motor vehicle rental tax.

All of these fees are transportation related, but the revenues generated are deposited into the General Revenue Fund. The revenues from any of these fees could be re-appropriated

into the Mobility Fund, or they could be sent into the state highway fund to increase the funds available for general highway financing.

Any increases in constitutionally dedicated funds would not be available for diversion into the Texas Mobility Fund but would increase the potential revenue available for long-term highway funding. An increase of one cent to the motor fuel tax would generate roughly $140 million each year for Texas with approximately $102 million of this going to the State Highway Fund. The additional $38 million would be deposited into the Available School Fund. Similarly, if the diesel fuel tax were increased by five cents, approximately $141 million would be generated for the state with $106 million going to the State Highway fund.

Vehicle Registration fees equal to 5% of the vehicle sales tax receipts have gone to General Revenue since 1992. A re-appropriation for these funds would raise $133 million per year for the State Highway fund. A $5 increase in the vehicle registration fees for passenger vehicles and commercial trucks would generate an additional $73 million and $23 million, respectively.

Currently, $350 million per year is appropriated from the State Highway Fund to finance the Department of Public Safety, including the agency's employee benefits. If alternate funding for the agency was established, an additional $350 million per year from Fund 006 would be available for highway financing.

Another option that has been discussed in recent years is the point of collection for motor fuel taxes. The Texas Department of Transportation believes that if the state moved the point for collection to rack like the federal government did several years ago, then the tax receipts would increase by $50 to $75 million per year. This would increase the amount of funding available for highway construction.

Another highway funding option that has been highly debated is the use of Grant Anticipation Revenue Vehicles or GARVEE bonds. GARVEEs allow the state to issue bonds based on the anticipated amount of future federal funding and then obligate this federal funding toward the repayment of the bonds.

It is expected that several changes will impact the Texas Mobility Fund in the future, but without a doubt, its financial capacity to finance future transportation projects is of critical importance to federal, state, and local governments.

6.5 Legislative Updates

Following are the House and Senate bills and bill amendments related to transportation management, operation, structure, and funding that have taken place on or since the year 2005.

- House Bill 1 (HB-1) – 2007
  Transportation Funds

  - ✓ The Texas Department of Transportation may not spend appropriated funds for the construction or planning of a state highway toll road or a Trans-Texas Corridor project unless the legislature has received the reports required by this Act.

  - ✓ In the event of a federally-mandated funding rescission, to the extent that the Department of Transportation has discretion in determining which federal funds will be rescinded; the Department of Transportation shall apply the total dollar amount to be rescinded proportionally across all eligible federal funding categories based on the total amount of unobligated funds in each eligible category. The department of transportation shall identify unobligated funds as the first source of funds to comply with a federally-mandated funding rescission.

- House Bill 300 (HB-300) – 2009
  Rail, Census, Texas Commission

  - ✓ In addition to any other duty imposed on the rail division of TxDOT, the division shall assure that rail is an integral part of TxDOT's transportation planning process; coordinate and oversee rail projects that are financed with money distributed by TxDOT including money from the Texas rail relocation and improvement fund; develop and plan for improved passenger and freight rail facilities and services in the state and coordinate the efforts of the department, the federal government, political subdivisions, and private entities to continue the development of rail facilities and services in the state.

  - ✓ To facilitate the development and interconnectivity of rail systems in the state, TxDOT shall coordinate activities regarding the planning, construction, operation, and maintenance of a statewide passenger rail system.

- ✓ TxDOT shall coordinate with other entities involved with passenger rail systems, including governmental entities, private entities and non-profit corporations. TxDOT shall prepare and update annually a long-term plan for a statewide passenger rail system.

- ✓ In addition to other duties of TxDOT under this subtitle, the department shall designate urban passenger rail demonstration programs. The purpose of the urban passenger rail demonstration programs under this chapter is to allow the department to select appropriate urban areas in the state that are challenged by severe traffic congestion and poor air quality and authorize those selected areas to demonstrate improvements by constructing mobility improvement projects using the electing process and methods of finance under chapter 180. This chapter does not grant regulatory control or authority over the operations or financing of local transit authorities or local transportation authorities.

- ✓ TxDOT shall prepare and annually submit, by December 31 of each year, a report relating to the urban passenger rail demonstration programs to the governor, lieutenant governor, speaker of the house, and the standing committee. The report must include a description of and general information about any urban passenger rail demonstration program selected by the department for implementation, including a description of all road and rail mobility improvements under construction, the results of any election conducted under Chapter 180, the construction or operation status of any passenger rail system constructed under an urban passenger rail demonstration program and the methods of finance used to construct and operate any mobility improvement project, an analysis of any difficulties a demonstration program is experiencing, current and future projections for ridership on any passenger rail system constructed under an urban passenger rail demonstration program selected under this chapter, and an analysis of the impact the mobility improvement projects and passenger rail systems constructed under an urban passenger rail demonstration program have had on congestion and air quality.

- ✓ The Texas Transportation Commission shall consist of fifteen (15) members, appointed by the governor with the advice and consent of the senate, fourteen (14) of whom shall be elected from geographic districts and one (1) of whom shall be elected at large and serve as chair of the commission.

- ✓ The legislature shall, at its first regular session after the publication of each United States decennial census, reapportion the geographic districts described in Subsection (a). The districts shall be substantially equal in population, according to the most recent United States decennial census. The legislature shall consider county lines, senatorial and representative districts, and commissioners' precincts in the reapportionment process.

- ✓ The transportation project and performance reporting system established under subsection (b) must include: information relating to each source of the department's funds, including the identification of revenue from each comprehensive development agreement or toll project; and information relating to all expenditures of the department by type of expenditure, as described in the comptroller's statewide accounting system, and reported for all applicable organizational groups and categories, including the entire department, each department division, each department district, and each program funding category for project expenses.

❖ House Bill 1107 (HB-1107) – 2005
Disadvantaged Counties

- ✓ The Texas Commission shall certify a county as an economically disadvantaged county on an annual basis as soon as possible after the comptroller reports on the economic indicators listed under subsection (a).

- ✓ The commission shall determine whether to make an adjustment under Subsection (c) (2) at the time a political subdivision that consists of all or a portion of an economically disadvantaged county submits a proposal to construct, maintain, or extend a highway or for another type of highway project.

❖ House Bill 2653 (HB-2653) – 2005
Reinvestment Zones

- ✓ An agreement under Section 311-010 (b) may dedicate, pledge, or otherwise provide for the use of revenue in the tax increment fund to pay the costs of acquiring land, or the development rights or a conservation easement in land, located outside the reinvestment zone if: the zone is or will be served by a rail transportation project or a bus rapid transit project; the land or the development rights or conservation easement in the land is acquired for the purpose of

preserving the land in its natural or undeveloped condition; the land is located in the county in which the zone is located.

- ✓ The board of directors of a reinvestment zone, if all of the members of the board are appointed by the municipality that creates the zone, or the governing body of the municipality that creates a reinvestment zone may enter into an agreement described by Subsection (c) only if: the board of the governing body determines that the acquisition of the land, or the development rights or conversation easement in the land, located outside the zone benefits or will benefit the zone by facilitating the preservation of regional open space in order to balance the regional effects of urban development promoted by the rail transportation project or bus rapid transit project; and the municipality that creates the reinvestment zone and the county in which the zone is located pay the same portion of their tax increment into the tax increment fund for the zone.

❖ House Bill 2702 (HB-2702) – 2005
Construction, acquisition, financing, maintenance, management, operation, ownership, and control of transportation facilities

- ✓ If the attorney general makes a determination that the United States Congress has enacted legislation amending the Internal Revenue Code of 1986 to include highway facilities or surface freight transfer facilities among the types of facilities for which private activity bonds may be used; the determination shall be published in the Texas Register.

- ✓ The Texas Department of Transportation shall establish and administer a program for private activity bonds issued for highway facilities or surface freight transfer facilities in this state.

- ✓ The program at a minimum must include a process by which the department and the Bond Review Board receive and evaluate applications for issuance of private activity bonds for highway facilities or surface freight transfer facilities.

- ✓ The Texas Department of Transportation may enter into an agreement with a private or public entity that provides for the payment of pass-through tolls for the department as reimbursement for the department's design, development, financing,

construction, maintenance, or operation of a toll or non-toll facility on the state highway system that is financed by the department.

- ✓ The Texas Department of Transportation and a regional mobility authority, a regional toll-way authority, or a county acting under chapter 284 may enter into an agreement that provides for: the payment of pass-through tolls to the authority or county as compensation for the payment of all or a portion of the costs of maintaining a state highway or a portion of a state highway transferred to the authority or county after being converted to a toll facility that the department estimates would have incurred if the highway had not been converted; or the payment by the authority or county for pass-through tolls to the department as reimbursement for all or a portion of the costs incurred by the department to design, develop, finance, construct, and maintain a state highway or a portion of a state highway transferred to the authority or county after being converted to a toll facility.

- ✓ The Texas Department of Transportation and any other person may not use state, federal, or other funds to implement the plan for the Trans-Texas Corridor.

- ✓ The commission may authorize the Texas Department of Transportation to borrow money from any source to carry out the functions of the department.

- ✓ Obligations may not be issued if the commission or the Texas Department of Transportation require that toll roads be included in a regional mobility plan in order for a local authority to receive an allocation from the fund, except that bond proceeds deposited in the fund and other money in the fund may be spent in the eight metropolitan areas, as identified in the department's transportation strategic plan and uniform transportation plan, regardless of whether the regional mobility plan includes toll roads.

- ✓ To the maximum extent permitted by law, the Texas Department of Transportation may delegate the full responsibility for design, bidding, and construction, including oversight and inspection, to a municipality, county, regional mobility authority, or regional toll-way authority with whom the department enters into an agreement under this section.

- ✓ A public entity may contract with a private entity to act as the public entity's agent in: the design, financing, maintenance, operation, or construction, including oversight and inspection, of a toll or non-toll facility under section 222.104; the maintenance of a state highway or a portion of a state highway subject to an agreement under section 222.104.

- ✓ The Texas Department of Transportation may enter into a comprehensive development agreement with a private entity to design, develop, finance, construct, maintain, repair, operate, extend or expand: a toll project; facility or a combination of facilities on the Trans-Texas Corridor; state highway improvement project that includes both tolled and non-tolled lanes and may include on tolled appurtenant facilities; state highway improvement project in which the private entity has an interest in the project; or state highway improvement project financed wholly or partly with the proceeds of private activity bonds, as defined by section 141 of the Internal Revenue Code of 1986.

- ✓ The amount of money disbursed by the department from the state highway fund and the Texas mobility fund during a federal fiscal year to pay the costs under comprehensive development agreements may not exceed 40 percent of the obligation authority under the federal-aid highway program that is distributed to this state for that fiscal year.

- ✓ A state highway or another facility described by section 223.201 that is the subject of a comprehensive development agreement with a private entity, including the facilities acquired or constructed on the project, is public property and shall be owned by the department.

- ✓ The Texas Department of Transportation may enter into an agreement that provides for the lease of rights-of-way, the granting of easements, the issuance of franchises, licenses, or permits, or any lawful uses to enable a private entity to construct, operate, and maintain a project, including supplemental facilities. At the termination of the agreement, the highway or other facilities are to be in a state of proper maintenance as determined by the department and shall be returned to the department in satisfactory condition at no further cost.

- ✓ The Texas Department of Transportation shall ensure that, at each intersection of a segment of a state highway that is designated as part of the Trans-Texas Corridor

and a segment of a highway that is designated as an interstate highway, state highway, or United States highway, the Trans-Texas Corridor and the interstate highway, state highway, or United States highway are directly accessible to each other.

- ✓ The Texas Department of Transportation shall make every reasonable effort to connect a segment of a state highway that is designated as part of the Trans-Texas Corridor with significant farm-to-market and ranch-to-market roads and major county and city arterials included in the locally adopted long-range transportation plan as determined by the department, taking into consideration: financial feasibility; advice solicited from county commissioners courts, governing bodies of municipalities, and metropolitan planning organizations; circuitry of travel for landowners; access for emergency vehicles; and traffic volume.

- ✓ A county may issue bonds to provide funds for the design, development, financing, construction, maintenance, operation, extension, expansion, or improvement of a toll or non-toll project or facility on the state highway system located in the county, or as a continuation of the project or facility, in an adjacent county. To provide for the payment of bonds issued under this section a county may pledge revenue from any available source, including payments received under an agreement with the Texas Department of Transportation under Section 222.104.

- ✓ A toll revenue or other revenue derived from a toll project or system that is collected or received by the Texas Department of Transportation under this chapter, and a payment received by the department under a comprehensive development agreement (CDA) for a toll project or system shall be deposited into the state highway fund.

- ✓ Payments received by the Texas Department of Transportation under a CDA may be used by the department to finance the construction, maintenance, or operation of a transportation project or air quality project in the region.

- ✓ A county, acting through the commissioners court of the county, may submit a request to the commission for authorization to create a regional mobility authority under Chapter 370 and to transfer all projects under this chapter to the regional mobility authority if the creation of the regional mobility authority and transfer of projects is not prohibited under the bond proceedings applicable to the projects;

adequate provision has been made for the assumption by the regional mobility authority of all debts, obligations, and liabilities of the county arising out of the transferred projects; and the commissioners courts of any additional counties to be part of the regional mobility authority have approved the request.

- ✓ The county may submit to the commission a proposed structure for the initial board of directors of the regional mobility authority and a method for appointment to the board of directors at the creation of the regional mobility authority.

- ✓ After Texas Transportation Commission authorization, the county may transfer each of its projects under this chapter to the regional mobility authority to the extent authorized by the Texas Constitution if property and contract rights in the projects and bonds issued for the projects are not affected unfavorably.

- ✓ The Texas Transportation Commission shall adopt rules governing the creation of a regional mobility authority and the transfer of projects under this section.

- ✓ A municipality that borders the United Mexican States and has a population of 500,000 or more has the same authority as a county to create and participate in an authority. A municipality creating or participating in an authority has the same powers and duties as a county participating in an authority, the governing body of the municipality has the same powers and duties as the commissioners court of a county participating in an authority, and an elected member of the municipality's governing body has the same powers and duties as a commissioner of a county that is participating in an authority.

- ✓ A county may issue bonds to provide funds for the design, development, financing, construction, maintenance, operation, extension, expansion, or improvement of a toll or non-toll project or facility on the state highway system located in the county or as a continuation of the project or facility, in an adjacent county.

- ✓ To provide for the payment of bonds issued under this section, a county may: pledge revenue from any available source, including payments received under an agreement with the Texas Department of Transportation under Section 222.104; pledge, levy, and collect taxes subject to any constitutional limitation.

❖ House Bill 3249 (HB-3249) – 2007

Sunset Commission

✓ The Sunset Advisory Commission consists of five members of the senate and one public member appointed by the lieutenant governor and five members of the house of representatives and one public member appointed by the speaker of the house. The lieutenant governor and the speaker of the house may serve as one of the legislative appointees. Legislative members serve four-year terms.

✓ Seven members of the commission constitute a quorum. A final action or recommendation may not be made unless approved by a record vote of a majority of members appointed by the lieutenant governor and the speaker of the house. All other actions by the commission shall be decided by a majority of the members present and voting.

✓ At each regular legislative session, the commission shall present to the legislature and the governor a report on the agencies and advisory committees reviewed, in the report the commission shall include: its findings regarding the criteria prescribed by section 325.011; its recommendations based on the matters prescribed by section 325.012; and other information the commission considers necessary for a complete review of the agency.

✓ The commission and its staff shall consider the following criteria in determining whether a public need exists for the continuation of a state agency or its advisory committees or for the performance of the functions of the agency or its advisory committees:

1. The efficiency and effectiveness with which the agency or the advisory committee operates.
2. An identification of the mission, goals, and objectives intended for the agency or advisory committee and of the problem or need that the agency or advisory committee was intended to address, the extent to which the mission, goals, and objectives have been achieved and how the problem or need has been addressed.
3. An identification of any activities of the agency in addition to those granted by statute and of the authority for those activities and the extent to which those activities are needed.

4. An assessment of authority of the agency relating to fees, inspections, enforcement, and penalties.
5. Whether less restrictive or alternative methods of performing any function that the agency performs could adequately protect or provide service to the public.
6. The extent to which the jurisdiction of the agency and the programs administered by the agency overlap or duplicate those of other agencies, the extent to which the agency coordinates with those agencies, and the extent to which the programs administered by the agency can be consolidated with the programs of other state agencies.
7. The promptness and effectiveness with which the agency addresses complaints concerning entities or other persons affected by the agency, including an assessment of the agency's administrative hearings process.
8. An assessment of the agency's rulemaking process and the extent to which the agency has encouraged participation by the public in making its rules and decisions and the extent to which the public participation has resulted in rules that benefit the public.
9. The extent to which the agency has complied with federal and state laws and applicable rules regarding equality of employment opportunity and the rights and privacy of individuals, and state law and applicable rules of any state agency regarding purchasing guidelines and programs for historically underutilized businesses.
10. The extent to which the agency issues and enforces rules relating to potential conflicts of interest of its employees.
11. The extent to which the agency complies with Chapters 551 and 552 and follows records management practices that enable the agency to respond efficiently to requests for public information.
12. The effect of federal intervention or loss of federal funds if the agency is abolished.

✓ In its report on a state agency, the commission shall: make recommendations on the abolition, continuation, or reorganization of each affected state agency and its advisory committees and on the need for the performance of the functions of the agency and its advisory committees; make recommendations on the consolidation, transfer, or reorganization of programs within state agencies not under review when the programs duplicate functions performed in agencies under review; and make recommendations to improve the operations of the agency, its policy body,

and its advisory committees, including management recommendations that do not require a change in the agency's enabling statute.

- ✓ The commission shall include the estimated fiscal impact of its recommendations and may recommend appropriation levels for certain programs to improve the operations of the state agency, to be forwarded to the Legislative Budget Board.

- ✓ The commission shall have drafts of legislation prepared to carry out the commission's recommendations under this section.

- ✓ After the legislature acts on the report under section 325.010, the commission shall present to the state auditor the commission's recommendations that do not require a statutory change to be put into effect. Based on a risk assessment and subject to the legislative audit committee's approval of including the examination in the audit plan under section 321.013, the state auditor may examine the recommendations and include as part of the next approved audit of the agency a report on whether the agency has implemented the recommendations and, if so, in what manner.

❖ House Bill 3437 (HB-3437) – 2007

Vehicle Registration

- ✓ An optional county fee for transportation projects applies only to a county that borders the United Mexican States; that has a population of more than 300,000; and in which the largest municipality has a population of less than 300,000.

- ✓ The commissioner's court of a county by order may impose an additional fee, not to exceed $10, for registering a vehicle in the county.

- ✓ A vehicle that may be registered under this chapter without payment of a registration fee may be registered in a county imposing a fee under this section without payment of the additional fee.

- ✓ A fee imposed under this section may take effect only on January 1 of a year. The county must adopt the order and notify the department not later than September 1 of the year preceding the year in which the fee takes effect.

- ✓ A fee imposed under this section may be removed. The removal may take effect only on January 1 of a year. A county may remove the fee only by: rescinding the order imposing the fee; and 1 of the year preceding the year in which the removal takes effect.

- ✓ The county assessor-collector of a county imposing a fee under this section shall collect the additional fee for a vehicle when other fees imposed under this chapter are collected. The county shall send the fee revenue to the regional mobility authority of the county to fund long-term transportation projects in the county.

- ✓ The Texas Department of Transportation shall collect the additional fee on a vehicle that is owned by a resident of a county imposing a fee under this section and that, under this chapter, must be registered directly with the department. The department shall send all fees collected for a county under this subsection to the regional mobility authority of the county to fund long-term transportation projects in the county.

- ✓ The Texas Department of Transportation shall adopt rules and develop forms necessary to administer registration by mail for a vehicle being registered in a county imposing a fee under this section.

❖ House Bill 4583 (HB-4583) – 2009
ARRA Funds

- ✓ The American Recovery and Reinvestment Act of 2009 (ARRA) was created as a special fund in the state treasury outside the general revenue fund. Notwithstanding any other law of this state and except as otherwise provided by federal law, state agencies that receive money under the recovery act shall deposit the money to the credit of the fund as the comptroller determines is necessary to hold and account for money received under the recovery act.

- ✓ Other money may be deposited to the credit of the fund as appropriated by the legislature, as required by federal law, or as necessary to account for money related to the recovery act. Money deposited to the credit of the fund may only be used for the purposes identified in the recovery act to stimulate the economy, including aid for unemployment, welfare, education, health, and infrastructure.

- ✓ Agencies shall transfer amounts between the fund and other accounts and funds in the treasury as necessary to properly account for money received under the recovery act as directed by the comptroller. This section does not affect the authority of the comptroller to establish and use accounts necessary to manage and account for revenues and expenditures.

- ✓ Interest earned on money deposited to the credit of the fund is exempt from Section 404.071. Interest earned on money in the fund shall be retained in the fund.

❖ Senate Bill 1 (SB-1) – 2005

- ✓ Any funds utilized for highway transportation projects must include as a component of the environmental study a water impact study that includes an analysis of the altercations of the local drainage patterns and the impact to the local water supply.

- ✓ Prior to the issuance of any bonds to fund the $1,919,560,001 appropriated by this Act out of the Texas Mobility Fund, the Department shall obtain a written verification from the comptroller of Public Accounts that the revenue pledged by the Department to support the bond is in compliance with state law governing the Texas Mobility Fund and that the revenue is sufficient to support the principle and interest payments on the debt.

- ✓ It is the intent of the legislature that the state auditor, pursuant to the auditor's authority under Section 321.0134, Government Code, use an appropriate portion of the funds appropriated to the State Auditor's Office by this Act to perform an effectiveness audit of the Texas Department of Transportation and evaluate the department's planned use of state money, including fees, tolls, and other revenue sources to support future transportation projects. It is the intent of the legislature that the state auditor completes the audit and submits the audit report no later than January 1, 2007.

❖ Senate Bill 1 (SB-1) – 2009

- ✓ The amount of $91 million is appropriated out of the state highway fund for the state fiscal year ending August 31, 2010, and $91 million is appropriated out of the state highway fund for the state fiscal year ending August 31, 2011, for transfer to the Texas rail relocation and improvement fund. The amounts are appropriated for expenditure out of the Texas rail relocation and improvement fund to the Texas

Department of Transportation to be used for the purposes described by Section 49-o, Texas Constitution.

- ✓ Any unexpended balance on August 31, 2010, of amounts appropriated by this rider are appropriated to the Texas Department of Transportation for the purposes of this rider for the state fiscal year beginning September 1, 2010.

- ✓ The Texas Department of Transportation shall adopt rules to allocate funds in such a manner that less than 90 percent of the total amount allocated under the formula program provided by Chapter 456, Subchapter B of the Transportation Code, and shall not distribute more than 10 percent of the total amount allocated under the discretionary program provided by Chapter 456, Subchapter C of the Transportation Code.

❖ Senate Bill 766 (SB-766) – 2007
Transfer of accident reports from Texas Dept of Public Safety to TxDOT

- ✓ The Texas Department of Transportation shall tabulate and analyze the vehicle accident reports it receives; annually or more frequently publish statistical information derived from the accident reports as to the number, cause, and location of highway accidents, including information regarding the number of accidents involving injury to, death of, or property damage to a bicyclist or pedestrian; and not later than December 15 of each even-numbered year provide to the governor and the legislature: an abstract of the statistical information for the biennium ending on the preceding August 31; and a report with the department's conclusions, findings, and recommendations for decreasing highway accidents and increasing highway safety.

- ✓ TxDOT shall provide electronic access to the system containing the accident reports so that the Department of Public Safety can perform its duties, including the duty to make timely entries on driver records.

- ✓ On October 1, 2007, all duties, obligations, rights, contracts, records, assets, funds, and property, excluding the real property and office space, of the Department of Public Safety of the State of Texas that relate primarily to the collection, tabulation, analysis, and maintenance of accident reports and records are transferred to the Texas Department of Transportation.

- Senate Bill 771 (SB-771) – 2005
  Reinvestment Zones

  - ✓ Subject to the approval of the governing body of the municipality that created the zone, the board of directors of a reinvestment zone, as necessary or convenient to implement the project plan and reinvestment zone financing plan and achieve their purposes, may establish and provide for the administration of one or more programs for the public purposes of developing and diversifying the economy of the zone, eliminating unemployment and underemployment in the zone, and developing or expanding transportation, business, and commercial activity in the zone, including programs to make grants and loans from the tax increment fund of the zone in an aggregate amount not to exceed the amount of the tax increment produced by the municipality and paid into the tax increment fund for the zone for activities that benefit the zone and stimulate business and commercial activity in the zone. For purposes of this subsection, on approval of the municipality, the board of directors of the zone has all the powers of a municipality under Chapter 380, Local Government Code.

  - ✓ The board of directors of a reinvestment zone or a local government corporation administering a reinvestment zone may contract with the municipality that created the zone to allocate from the tax increment fund for the zone an amount equal to the tax increment produced by the municipality and paid into the tax increment fund for the zone to pay the incremental costs of providing municipal services incurred as a result of the creation of the zone or the development or redevelopment of the land in the zone, regardless of whether the costs of those services are identified in the project plan or reinvestment zone financing plan for the zone.

- Senate Bill 1266 (SB-1266) – 2007
  Pass-Through Financing and the designation and operation of transportation reinvestment zones

  - ✓ Payments, project savings, refinancing dividends, and any other revenue received by the Texas Transportation Commission or the Texas Department of Transportation under a comprehensive development agreement shall be used by the commission or the department to finance the construction, maintenance, or operation of transportation projects or air quality projects in the region.

- ✓ The Texas Department of Transportation shall allocate the distribution of funds to department districts in the region that are located in the boundaries of the metropolitan planning organization in which the project that is the subject of the comprehensive development agreement is located based on the percentage of toll revenue from users from each department district of the project. To assist the department in determining the allocation, each entity responsible for collecting tolls for a project shall calculate on an annual basis the percentage of toll revenue from users of the project from each department district based on the number of recorded electronic toll collections.

- ✓ The Texas Transportation Commission or the department may not revise the formula as provided in the department's unified transportation program, or its successor document, in a manner that results in a decrease of a department district's allocation because of a payment under subsection (a); take any other action that would reduce funding allocated to a department district because of payments received under a comprehensive development agreement.

- ✓ A metropolitan planning organization may not take any action that would reduce distribution of funds or other resources to a department district because of the use of a payment or other revenue under subsection (a).

- ✓ The county or the local toll project entity is the entity with the primary responsibility for the financing, construction, and operation of a toll project located in the county or the city. A county or local toll project entity may develop, construct, and operate a project described in Subsection (a) at any time, regardless of whether it receives a first option notice from the commission or the department under subsection (3).

- ✓ Consistent with federal law, the Texas Department of Transportation shall assist the county in the financing, construction, and operation of a toll project in the county by allowing the county to use state highway right-of-way owned by the department and to access the state highway system. The Texas Transportation Commission or the Texas Department of Transportation may not require the county to pay for the use of the right-of-way or access, except to reimburse the department as provided by this subsection. The county shall pay an amount to reimburse the department for the department's actual costs to acquire the right-of-way. If the department cannot determine that amount, the amount shall be determined based on the average

historical right-of-way acquisition values for right-of-way located in proximity to the project on the date of original acquisition of the right-of-way. Money received by the department under this subsection shall be deposited in the state highway fund and used in the department district in which the project is located.

- ✓ If a local toll project entity or the Texas Department of Transportation determines that a toll project located within the boundaries of the local toll project entity should be developed, constructed, and operated as a toll project, the local toll project entity and the department mutually shall agree on the terms and conditions for the development, construction, and operation of the toll project, including the initial toll rate and the toll rate escalation methodology.

- ✓ It the local toll project entity and the Texas Department of Transportation are unable to mutually agree on the terms and conditions for the development, construction, and operation of the toll project as required by subsection (e), neither the local toll project entity nor the department may develop the project as a toll project.

- ✓ The local toll project entity and the Texas Department of Transportation mutually shall determine which entity, including a third party under contract with the local toll project entity r the department, will develop a market valuation of the toll project that is based on the terms and conditions established under Subsection (e). The department and a local toll project entity may agree to waive the requirement to develop a market valuation under this section.

- ✓ The Texas Department of Transportation and the county or local toll project entity must enter into an agreement that includes reasonable terms to accommodate the use of the right-of-way by the county or local toll project entity and to protect the interests of the commission and the department in the use of the right-of-way for operations of the department, including public safety and congestion mitigation on the right-of-way.

- ✓ Before the Texas Department of Transportation may enter into a contract for the financing, construction, or operation of a proposed or existing toll project, any part of which is located in the county or the city, the commission or department shall

provide the county or the city the first option to finance, construct, or operate the portion of the toll project located in the county or the city.

- ✓ The Texas Transportation Commission or Texas Department of Transportation may take any action that in its reasonable judgment is necessary to comply with any federal requirement to enable this state to receive federal-aid highway funds.

- ✓ A local toll project entity and the Texas Department of Transportation may issue bonds, including revenue bonds and refunding bonds, or other obligations, and enter into credit agreements, to pay any costs associated with a project under this section, including the payments deposited to the applicable toll project subaccount, and the costs to construct, maintain, and operate additional transportation projects that the local toll project entity or the department commits to undertake in accordance with this section as follows: the bonds or other obligations and the proceedings authorizing the bonds or other obligations must be submitted to the attorney general for review and approval as required by Chapter 1202, Government Code; the bonds or other obligations may be payable from and secured by revenue of one or more projects of the local toll project entity or the department, including toll road system revenues, or such other legally available revenue or funding sources as the local toll project entity or department shall determine; the bonds or other obligations may mature serially or otherwise not more than 30 years from their date of issuance; the bonds or other obligations are not a debt of and do not create a claim for payment against the revenue or property of the local toll project entity or the department, other than the revenue sources pledged for which the bonds or other obligations are issued; and the local toll project entity and the department may issue obligations and enter into credit agreements under Chapter 1371, Government Code, and for purposes of that chapter, a local toll project entity and the department shall be considered a public utility and any cost authorized to be financed in accordance with this subsection is an eligible project.

- ✓ A county, acting through the commissioner's court of the county, or a local government corporation, without state approval, supervision, or regulation, may construct, acquire, improve, operate, maintain, or pool a project located exclusively in the county; in the county and outside the county; or in one or more counties adjacent to the county. It may issue tax bonds, revenue bonds, or combination tax and revenue bonds to pay the cost of the construction, acquisition, or improvement of a project; impose tolls or charges as otherwise authorized by this chapter;

construct a bridge over a deepwater navigation channel, if the bridge does not hinder maritime transportation; construct, acquire, or operate a ferry across a deepwater navigation channel; in connection with the project, on adoption of an order, exercise the powers of a regional mobility authority operating under chapter 370; or enter into a comprehensive development agreement with a private entity to design, develop, finance, construct, maintain, repair, operate, extend, or expand a proposed or existing project in the county to the extent and in the manner applicable to the department under chapter 223 or to a regional toll-way authority under chapter 366.

- ✓ Except as provided by federal law, an action of a county taken under this chapter is not subject to approval, supervision, or regulation by a metropolitan planning organization.

- ✓ The commissioner's court of a county or a local government corporation, without state approval, supervision, or regulation may: authorize the use or pledge of surplus revenue to pay or finance the costs of a project for the study, design, construction, maintenance, repair, or operation of roads, streets, highways, or other related facilities that are not part of a project under this chapter; and prescribe terms for the use of the surplus revenue, including the manner in which revenue from a project becomes surplus revenue and the manner in which the roads, streets, highways, or other related facilities are to be studied, designed, constructed, maintained, repaired, or operated.

- ✓ A county may not take an action under this section that violates or impairs a bond resolution, trust agreement, or indenture that governs the use of the revenue of a project.

- ✓ If a county is requested by the Texas Transportation Commission to participate in the development of a project under this chapter that has been designated as part of the Trans-Texas Corridor, the county has, in addition to all powers granted by this chapter, all powers of the department related to the development of a project that has been designated as part of the Trans-Texas Corridor.

- ✓ A county may use any county property for a project under this chapter, regardless of when or how the property is acquired.

- ✓ A county may use state highway right-of-way and may access state highway right-of-way in accordance with sections 228.011 and 228.0111.

- ✓ Payments received by an authority under a comprehensive development agreement shall be used by the authority to finance the construction, maintenance, or operation of a turnpike project or a highway.

- ✓ The authority shall allocate the distribution of funds received under subsection (a) to the counties of the authority based on the percentage of toll revenue from users, from each county, of the project that is the subject of the comprehensive development agreement. To assist the authority in determining the allocation, each entity responsible for collecting tolls for a project shall calculate on an annual basis the percentage of toll revenue from users of the project from each county within the authority based on the number of recorded electronic toll collections.

- ✓ An authority shall provide, for reasonable compensation, customer service and other toll collection and enforcement services for a toll project in the boundaries of the authority, regardless of whether the toll project is developed, financed, constructed, and operated under an agreement, including a comprehensive development agreement, with the authority or another entity.

- ✓ Each policy board of a Metropolitan Planning Organization shall adopt bylaws establishing an ethics policy to prevent a policy board member from having a conflict of interest in business before the metropolitan planning organization.

❖ Senate Bill 827 (SB-827) – 2005

Colonias

- ✓ Colonia means a geographic area that is an economically distressed area as defined by section 17.921, Water Code; and is located in a county any part of which is within 62 miles of an international border.

- ✓ Based on information provided under subsections (c) and (d), the secretary of state shall establish and maintain a classification system that allows the secretary of state to track the progress of state-funded projects in providing water or wastewater services, paved roads, and other assistance to colonias.

- ✓ The secretary of state shall compile information received from the Office of Rural Community Affairs, the Texas Water Development Board, the Texas Transportation Commission, the Texas Department of Housing and Community Affairs, the Department of State Health Services, and any other agency considered appropriate by the secretary of state for purposes of the classification system.

- ✓ The secretary of state shall: prepare a report on the progress of state-funded projects in providing water or wastewater services, paved roads, and other assistance to colonias; and submit the report to the presiding officer of each house of the legislature not later than December 1 of each even-numbered year.

- ✓ The report to the legislature must include a list of colonias with the highest health risk to colonia residents, based on factors identified by the secretary of state.

- ✓ In conjunction with the establishment of the classification system required by this section, the secretary of state shall establish and maintain a statewide system for identifying colonias.

- ✓ The secretary of state may contract with a third party to develop the classification system or the identification system or to compile or maintain the relevant information required by this section.

- ✓ To assist the secretary of state in preparing the report required under Section 405.021, the office on a quarterly basis shall provide a report to the secretary of state detailing any projects funded by the office that serve colonias by providing water or wastewater services, paved roads, or other assistance. The report must include: a description of any relevant projects; the location of each project; the number of colonia residents served by each project; the cost or anticipated cost of each project; a statement of whether each project is completed and, if not, the expected completion date of the project; and any other information, as determined appropriate by the secretary of state.

- ✓ The colonia initiatives coordinator shall appoint a colonia ombudsman in each of the six border counties that the coordinator determines have the largest colonia populations.

- ✓ The colonia ombudsman shall gather information about the colonias in the counties for which the ombudsmen were appointed and provide the information to the secretary of state, to assist the secretary of state in preparing the report required under section 405.021.

- ✓ To the extent possible, the ombudsmen shall gather information regarding; the platting of each colonia; the infrastructure of each colonia; the availability of health care services; the availability of financial assistance; and any other appropriate topic as requested by the secretary of state.

❖ Senate Bill 1266 (SB-1266) – 2007
Reinvestment Zones

- ✓ The amount of a county's or municipality's tax increment for a year is the amount of ad valorem taxes levied and collected by the county or municipality for that year on the captured appraised value of real property taxable by the county or municipality and located in a transportation reinvestment zone under this section.

- ✓ The captured appraised value of real property taxable by a county or municipality for a year is the total appraised value of all real property taxable by the county or municipality and located in a transportation reinvestment zone for that year less the tax increment base of the county or municipality.

- ✓ The tax increment base of a county or municipality is the total appraised value of all real property taxable by the county or municipality and located in a transportation reinvestment zone for the year in which the zone was designated under this section.

- ✓ If the governing body determines an area to be unproductive and underdeveloped and that it meets the criteria under section 222.105, the governing body of the county or municipality by ordinance may designate a contiguous geographic area in the jurisdiction of the county or municipality to be a transportation reinvestment zone to promote a transportation project described by section 222.104 that cultivates development or redevelopment of the area.

- ✓ The ordinance designating an area as a transportation reinvestment zone must: describe the boundaries of the zone with sufficient definiteness to identify with

ordinary and reasonable certainty the territory included in the zone; provide that the zone takes effect immediately on passage of the ordinance; assign a name to the zone for identification; establish a local ad valorem tax increment account for the zone; contain findings that promotion of the transportation project will cultivate development or redevelopment of the zone.

- Senate Bill 1713 (SB-1713) – 2005
  Study Commission on Transportation Financing

  - ✓ The study commission on transportation financing is created as provided by this section.

  - ✓ The commission is composed of nine members as follows: three members of the general public appointed by the governor; three members appointed by the lieutenant governor, of which one is a member of the general public and two are members of the senate; and three members appointed by the speaker of the house of representatives, of which one is a member of the general public and two are members of the house.

  - ✓ The commission shall conduct public hearings and study public policy implications relating to the financing of transportation projects.

  - ✓ The study shall include: a review of the state motor fuels tax in order to evaluate the state motor fuels tax, including its efficacy in funding the transportation needs of this state and examine and evaluate the expenditure of funds from the state highway fund; a review of the current sources for funding rail transportation projects in order to evaluate the options for rail funding, including their efficacy in funding identified rail needs of the state and identify other possible sources of funding; a review of all other financing options for all modes of transportation, including but not limited to motor vehicle user fees and fines, bonding, and other debt financing methods.

7.0 Executive Summary

The **Hidalgo County Metropolitan Planning Organization (HCMPO)** is designated by the State of Texas as the Metropolitan Planning Organization to coordinate transportation planning for the region. The **HCMPO Transportation Policy Committee (TPC)** is responsible for the development of the long-range, 25-year transportation plan for the **Transportation Management Area (TMA)**, which is updated in five-year cycles. Regional coordination of the **Metropolitan Transportation Plan (MTP)** involves various stakeholders including the cities, the county, state agencies, transportation agencies, and the citizens of the region.

The purpose of the **2010-2035 Hidalgo County Metropolitan Planning Organization MTP** is to define the future transportation system for the Hidalgo County Metropolitan area. Over the next 25 years, the Hidalgo County and Lower Rio Grande Valley region will face many challenges and opportunities, while continuing to be a dynamic economic center. One challenge is to assess the region's mobility needs, then provide the plan for the area's transportation system. The MTP is a mechanism to help local and state governments and transportation agencies identify transportation investments that will improve mobility, increase safety, and complement communities' development plans. The HCMPO MTP is a comprehensive, multimodal blueprint for transportation systems and services aimed at meeting the mobility needs of Hidalgo County. It serves to guide the expenditure of more than $1 billion of Federal, State, and local funds expected to be available for transportation improvements through the year 2035.

The MTP represents the initial stage in the planning development of transportation project proposals offered to the public and policy makers for discussion. Some of these project proposals have not been developed for implementation and will require future discussion, research and coordination. The MTP must determine investment priorities for potential projects that have the greatest transportation benefit within estimated financial resources. In order to be fiscally constrained as federally required, the MTP expenditures cannot

exceed its likely revenues. The MTP recommends a combination of strategies and solutions to contain and reduce congestion. The MTP proposes to address congestion by efficiently operating and managing our existing transportation facilities, expanding select roadways, growing bus and rail transit services, expanding bicycle and pedestrian facilities, and reducing traffic crashes.

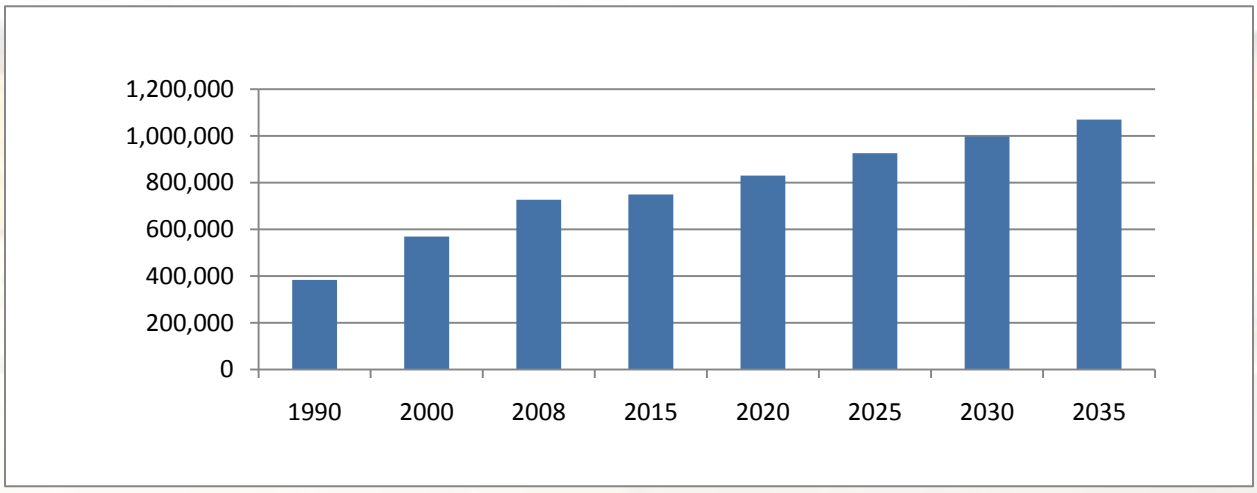
Public involvement was a key component in the development of 2035 MTP Update. Consistent with the public involvement procedures adopted by the Transportation Policy Committee, external public meetings were held on the draft 2035 MTP Update, and 60 days were allowed for public comment prior to adoption of the Plan Update. There were 6 public meetings held beginning in October 2009, to keep the community aware of the progress and issues associated with the MTP Update development. Time Warner Cable was utilized to announce times and locations for open house venues in which the public was invited to participate and be educated about the MTP process. Recommendations of the Plan Update were then developed under the guidance of the elected officials who comprise the Transportation Policy Committee as well the technical guidance and support that was provided by the HCMPO **Technical Advisory Committee (TAC)** as well as the MTP Steering Committee and the Data Criteria subcommittee.

Growth Trends

The 2035 MTP considers the transportation need of the Urbanized Area of Hidalgo County. The population of Hidalgo County continues to grow at a faster rate than that of the State of Texas or the United States. (Figure 7.0.1) This trend of rapid growth is expected to continue through the year 2035. At the time of the 1990 census, the HCMPO was comprised of 338.7 square miles and had a population of 290,000, which made it the seventh largest Transportation Management Area (TMA) in Texas. After the 2000 census was conducted, the urbanized area was updated to include 743.21 square miles and a population of almost 570,000, making it the 6th largest TMA in Texas. The Hidalgo County MPO has been among the top five (5) fastest growing metro areas in the U.S. every year since 1986. According to

projections performed by the HCMPO staff, population will grow by 75 percent, from 570,000 persons in 2000 to almost 1 million persons in 2030. Employment trends in Hidalgo County also have high projected growth rates. Employment is projected to increase by 57 percent by 2030, from 154,000 jobs in 2000 to 241,000 jobs. On average, the region is expected to add population at a rate of 14,000 persons per year and employment at a rate of 3,000 jobs per year. The dramatic growth of the region will have significant accessibility, mobility, and economic implications. If current travel trends continue, this translates into more travel resulting in increased traffic congestion and negative air quality impacts. These trends include: increases in automobile ownership, drive alone travel, and suburbanization, resulting in more and longer trips. Unless a way to modify the travel characteristics of the residents of the region is found, an already overburdened transportation system will have to absorb this increase in travel.

Figure 7.0.1: Projected Population Growth for Hidalgo County



International Impacts

International border crossings have increased tremendously along the Texas border after the implementation of NAFTA (North American Free Trade Agreement) in January 1994. Population growth and economic development are the two major factors affecting the

Valley's rapid growth increasing pressure on the urban and the transportation infrastructure. Hidalgo County is the 4th fastest growing Metropolitan Statistical Area (MSA) in the United States. This region is experiencing a faster economic growth than any other border town between US and Mexico, particularly in the manufacturing sector. Of all the trade between the two nations, 12.8 percent comes through this region and out of 148.4 billion dollars that cross through the South Texas border, 38.5% crosses through the Rio Grande Valley [US Department of Commerce-Bureau of Economic Analysis-compiled by UT-Pan Am Compiled, 1999]. The increase in number of *Maquiladoras* (Manufacturing Industries) across the borders is one of the direct impacts of NAFTA. Maquiladoras are the manufacturing facilities on one side of the border and warehousing facilities on the other side. The Maquiladoras are designed to take advantage of both the resources such as labor supply, lower wages, and etc. These tend to increase interests of the agencies in establishing industries on the borders to employ individuals for lower wages and for less investment on the raw materials.

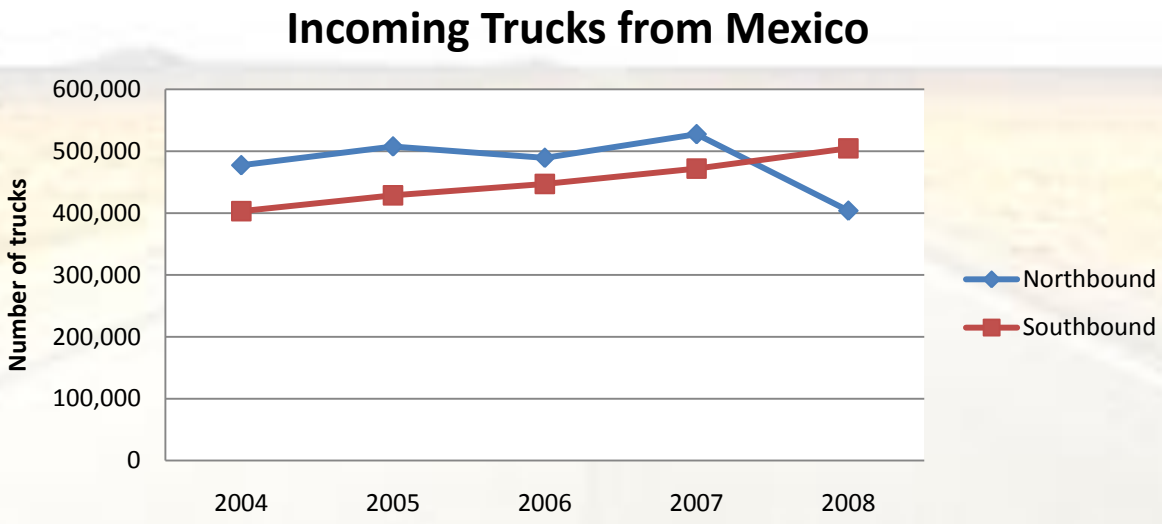
Maquiladoras have seen growth in many areas due to growth in number of facilities, expansion of existing facilities and employment. Earlier statistics showed that there were around 2000 Maquiladoras and 500,000 workers in the early to mid 1990s. As per the statistics of the current period there are around 3000 Maquiladoras on the United States-Mexico border with over one million workers in these manufacturing units. This shows that the number of Maquiladoras has increased and the number of workers has more than doubled.

Some of these businesses expedite products being shipped from other states and/or countries to Mexico; assemble them in a finished product and ship them back to the United States. Some of these products are accessories for the electronic equipment, clothing, plastics, furniture, appliances and auto parts. Operations such as General Electric, General Motors, TRW, Black & Decker, Bissell, Whirlpool and Maytag are among Fortune 500

companies that are cutting their production costs by utilizing the world-class labor pool associated with the *Maquiladoras* Program.

Because of the growing population due to the manufacturing plants, border cities are acting as foreign trade zones or "free ports" that are regulated by the US customs. Raw materials and/or finished goods may be brought into the zone from another country duty-free and then may be stored, assembled, repackaged, graded, manufactured, or re-exported without payment of U.S. Customs duties. This has prompted the likely increase in the border traffic in Texas. *Figure 7.0.2* shows the historical growth trends of freight movements entering Hidalgo County through the International Bridges. 2008 showed a dramatic decrease in northbound truck traffic due largely upon the downturn in the economy.

Figure 7.0.2: Incoming Trucks from Mexico



Interstate 69

Another issue related to NAFTA and the Valley is Interstate 69. The development of interstate 69 would create a seamless freight corridor from Canada to Mexico. Interstate 69 is an interstate highway in the Midwestern United States. It runs from Indianapolis,

Indiana at interstate 465 to the U.S side of the Blue Water Bridge in Port Huron Michigan at the Canadian border. I-69 has become increasingly important point of international trade between United States and Canada after the NAFTA agreement. I-69 is one of two so-called "NAFTA Highways" in Michigan connecting two countries. Earlier I-69 began in Michigan and ends in neighboring Indiana.

I-69 being an integral part of the high priority corridor 18, originated with the Intermodal Surface Transportation Efficiency Act of 1991(ISTEA) where the U.S Congress designated certain highway corridors of national significance to be included in the National Highway System. The corridor now has been defined by congress to extend from Port Huron, Michigan at the Canadian border, to the southern border connecting Mexico and Canada. This would make the shortest route between the industrial northeast and the South Texas border with Mexico. A Steering Committee consisting of representatives of eight State Departments of Transportation and Federal Highway Administration has directed the analysis for corridors 18 and I-69. This committee is the national-level planning and coordinating entity for extension of the existing I-69 from Port Huron, Michigan to the Texas/Mexico border.

Development of I-69 is supposed to improve international and interstate trade and help develop surface transportation. I-69 would provide a continuous highway link designed to Interstate highway standards from the Mexican border to the Canadian border, which is approximately 1,650 miles. Throughout its length, the I-69 would connect 16 existing Interstate highways crossing corridor 18 (10 east-west routes and 6 north-south routes), and it would also link 10 urban areas or more than 50,000 population along the corridor.

Within urban areas, development of I-69 could provide the means to upgrade existing Interstate routes, connect major transportation corridors and radial freeways with a new facility. About 63% of total U.S truck-borne trade with North America is through the I-69

corridor states and the states using I-69 and its borders crossing ports. I-69 corridor states account for 51% of U.S truck-borne trade with Mexico. The existing I-69 is from Port Huron, Michigan/Sarnia, Ontario, Canada to Indianapolis. A new interstate route will be from Indianapolis to the Lower Rio Grande Valley (LRGV) serving Indiana, Tennessee, Louisiana, and Texas.

What's Next?

Upon approval of the 2035 MTP by the TPC in December, the HCMPO will continually review and evaluate the future transportation needs of Hidalgo County. Mindful of the increased growth in population and transportation needs of Hidalgo County the HCMPO staff will begin to evaluate several areas for possible advancement in the 5 year time frame between updates of the MTP.

There are several areas that the HCMPO should address in the future, such as:

- Encouraging a reduction in peak period automobile travel by encouraging flexible work schedules and an increase in Transit usage. Travel by transit tends to be 20 times safer than automobile travel;
- Inclusion of a multi-modal project list in the plan that identifies projects in all modes to e built under the plan;
- Development of an integrated public transportation system that will promote public transportation as a viable option for many regional trip;
- A greater emphasis on land use. Land use can have a dramatic impact on the viability of alternative modes including walking, biking and transit;
- A great emphasis on land use and growth management. Integrated land use and transportation and growth management can have a beneficial impact on energy use and the environment;
- Construction of park-and-ride facilities that allow connection between automobile trips and transit;

- Deployment of a regional ITS framework that allow data to be shared between various service providers;
- Provision of bike racks in busses and at transit centers that allows for convenient transfer between bikes and transit;
- Shifting towards tolling or non-traditional funding for many added capacity projects-tolls can provide a revenue stream that can support maintenance of facilities over time.

Although the MTP process is approved in Hidalgo County, the process does not start and begin at those time frames. It is important that the HCMPO TPC, TAC, and Staff continue to analyze, evaluate and determine the growing needs of the citizens of Hidalgo County with regards to their transportation needs.

Copies of this report will be available on the HCMPO web (www.hcmpo.org) site once the web site is updated. Copies may be acquired at the HCMPO offices located at 510 South Pleasantview Drive, Weslaco, TX 78596, or you can contact the offices via phone at 956-969-5778 or via email at info@hcmpo.org.